

Personal Soundtracks on Public Transit:

Personal listening devices and socio-spatial negotiations of students' bus journeys

Katie Hemsworth, Master of Arts

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Abstract

One way of exploring the power of sound in the experience and constitution of space is through the phenomenon of personal listening devices (PLDs) in public environments. In this thesis, I draw from in-depth interviews with eleven Brock University students in St. Catharines, Ontario, to show how PLDs (such as MP3 players like the iPod) are used to create personalized soundscapes and mediate their public transit journeys. I discuss how my interview participants experience the space-time of public transit, and show how PLDs are used to mediate these experiences in acoustic and non-acoustic ways. PLD use demonstrates that acoustic and environmental experiences are co-constitutive, which highlights a kinaesthetic quality of the transit-space. My empirical findings show that PLDs transform space, particularly by overlapping public and private appropriations of the bus. I use these empirical findings to discuss the PLD phenomenon in the theoretical context of spatiality, and more specifically, acoustic space. I develop the ontological notion of acoustic space, stating that space shares many of the properties of sound, and argue that sound is a rich epistemological tool for understanding and explaining our everyday experiences.

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This thesis is for Amelia Pinedale.

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Track One Introduction

And with that, we turn to the iPod, both as a product of our society and as a location where we can find thought, dialog, education, identity, community, and meaning . . . (Wittkower 2008: xv)

On any given day, riding the Number 16 bus from the downtown terminal to Brock University in St. Catharines, Ontario, seems like “business as usual,” part of an ordinary or mundane routine required to get from one place to another. As the bus approaches the university, it becomes increasingly packed with students; some are having conversations, but most are staring straight ahead, out a window, or down at the floor, avoiding eye contact with fellow passengers. Telephone poles zip by in a blur, chatter flows in and out of earshot, and passengers shift their balance as the bus moves. And then you notice them: tiny white earbuds nestled in a person’s ears, attached to an electronic device that is tucked away under a jacket or hidden in the palm of a hand. You become increasingly aware of the high proportion of students “plugged in” to these devices, immersed in their own private acoustic world (Bull 2007). As Wittkower implies in the epigraph, what appears ordinary, or mundane, is anything but. It *means* something to say that personal listening devices, like the iPod I describe above, have become a *part* of people, a taken-for-granted accessory like a watch or a pair of glasses; it *means* something to say that people feel a need to bring music with them on a ten minute bus ride, and that, in doing so, they reshape the acoustic, visual, and social environment.

In this thesis, I seek to explore these meanings by examining empirically the use of personal listening devices (PLDs) among Brock University students on public transit in St. Catharines, Ontario. Drawing on in-depth interviews with eleven Brock students, I discuss how and why these technologies are used on the bus, how acoustic and visual activity

associated with them influences my participants' transit experience, and how it affects the way people think about and organize space. The analysis is developed in relation to two important concepts in the study of sound and spatiality: soundscape and acoustic space. The notion of acoustic space, in particular, informs my analysis, and my analysis, in turn, adds to the conceptualization of acoustic space. My thesis contributes to existing literature on the music listening habits of PLD users in public spaces by providing empirical evidence of the effects of PLDs on everyday experience, focusing on a specific population and site, and using these empirical findings to further develop theories of acoustic space. While music in particular, and the sonic environment more broadly, has recently begun to receive attention in cultural geography (see Connell & Gibson 2003; Knight 2006; Kong 1995a, 1995b, 1997; Leyshon *et al.* 1995; Leyshon 2001; Smith 2000; Valentine 1995; Waterman 1998), the increasing importance of headphones (and associated technologies) to people's experiences of music and the places they occupy in their daily lives has not been extensively investigated (but see Beer 2007; Bull 2000, 2005, 2006, 2007; Chow 1993; LaBelle 2006; Kong 1995b; Valentine 1995).

To address the increasing importance of PLDs to the experience of music and place, and to the constitution of space, I investigate the following research questions:

1. How do Brock University students experience the space-time of public transit during their daily commute to and from the university?
2. How are PLDs used to mediate the bus environment?
3. How do PLDs shape musical and spatial relationships in the bus environment?
4. What are the implications of PLD use for a theory of acoustic space?

My research questions are cumulative; each question builds from the previous one(s), and provides essential context for the questions that follow it. Furthermore, each of the analytical chapters (Chapters Three through Six) addresses, in order, one of the research questions.

This introductory chapter serves three main purposes. First, I provide a contextual overview of the PLD phenomenon, in general and in St. Catharines. Secondly, I examine Michael Bull's contribution to a growing body of literature on PLDs to offer insight into my own research topic, and I explain how my research investigates PLD use in ways that both align with and depart from Bull's work. Thirdly, I outline the methodology used to help explore my research questions. I explain the usefulness of in-depth interviews with Brock University students as the main source of data, and outline the epistemological positions that have shaped my methodological choices. I describe the themes covered in my interviews, explain my sampling techniques, and describe the characteristics of public transit in St. Catharines to show its complexity as a research site. This provides necessary methodological context for understanding the empirical findings and theoretical positions discussed in Chapters Three through Six.

In the following section, I present an overview of the phenomenon of PLDs in urban environments, to demonstrate the significance of my research topic, and to establish a base from which my research questions and methodology can be better understood.

The "playlist" of the rest of my thesis unfolds as follows. Chapter Two ("Conceptual Frameworks") outlines key conceptual frameworks on soundscape and acoustic space. I trace the presence of sound and music in geographical scholarship, recognizing this topic as emergent in a field that has long been preoccupied with the visual. I conclude the chapter with the argument that properties of sound are also properties of space, and contend that personal listening devices create room for new theories of spatiality, as they allow us to conceptualize space in acoustic terms using auditory epistemologies (Bull 2007).

In Chapter Three ("Why I'd Drive a Car if I Could"), I explain why my participants chose the bus over other modes of transportation and then move on to explore how my participants experience the space-time of their bus journey. In doing so, I address my first

research question (how Brock students experience the space-time of public transit) and provide useful context for later chapters that address why some of my participants use PLDs. I show that my participants experience the bus as kinaesthetic, because it is multi-sensory and mobile. My participants also note that the bus, despite being a mobile environment, has characteristics of immobility and constraint, mostly due to the bus's structure as a constricting space. Finally, the environment is experienced as "chilly" (Bull 2007), characterized by social detachment, anonymity, and even hostility. Chapter Three is primarily designed as an empirical analysis, but it also begins to identify some of the ways that my participants think about space, which will be used to inform a more theoretical discussion in Chapter Six.

Chapter Four ("It's All About Control") explores my second research question, which asks how PLDs mediate the transit environment. My findings in this chapter are closely aligned with Michael Bull's (2007) conclusions, as I demonstrate how PLDs are used to alleviate boredom, mediate solitude, and "fill" time with an activity my participants perceive as meaningful. I explore the effect that music has on my participants' moods as well as their connections with specific places throughout their journey. I borrow Bull's notions of "warm" and "chilly" spaces to show how my participants use PLDs as tools to create a more tolerable, or "warmer," environment for themselves, which also results in making the social environment "chillier" because it leads to social distancing and anonymity.

In Chapter Five ("It's Not *Your Bus*"), I address the third research question: how PLDs on public transit affect musical, environmental, and spatial relationships. I argue that the personal soundscapes created through a PLD recontextualize the surrounding *environment* at the same time that the environment recontextualizes the *music*. Indeed, PLDs and their associated music have become so heavily integrated into public spaces such as the bus that they now appear to be *built into* the characteristics of the transit-space. My

participants' discussions demonstrate that personalized devices that privilege an individual, isolated experience challenge the "public" or shared space of the bus. Using the example of music "leaking" out of riders' headphones, I demonstrate that sound is a key property that shapes people's understandings of space on the bus, with particular reference to my participants' expectations for personal space in a public environment.

In the concluding chapter ("End of Playlist"), I provide an overview of my empirical findings, and place them specifically in the context of acoustic space. In doing so, I satisfy my aim to incorporate sound more fully into understandings of space in geographical scholarship, and show how the properties of sound constitute space, as multi-layered, multi-directional, simultaneous, non-linear, and non-perspectival (McLuhan & Carpenter 1960; Cavell 2002; McLuhan 1968, 2004; Smith 1994, 1997, 2000). I show how some of my empirical findings, which address the use of PLDs in the bus environment, highlight an acoustic space sensibility. I also discuss whether music on PLDs, as a special example of sound, might also retrieve visual properties of space in some instances, and identify new questions that emerge from such a complex notion.

In the following section, I provide a brief overview of PLDs, which will later be discussed alongside Michael Bull's (2000, 2007) research on PLDs and urban experience. This will provide necessary context which will be used as a basis for understanding the impact of the PLD phenomenon in spaces like public transit.

Personal Listening Devices (PLDs)

It's a six-ounce entanglement of cultural signifiers, evoking many things to many people. (Levy 2006: 4)

I used to listen to the transistor radio at night. It was one of the first really small radios that you could put under your pillow . . . Transistor radios are fuckin' great. The original boom box. Just the fact that you could have your tunes *with* you. That was just amazing. (Neil Young, in McDonough's *Shakey*, 2003).

In the context of mobile listening devices, three major transformations have taken place over the past half-century: the transistor radio, the Sony 'Walkman', and the MP3 player, especially the Apple iPod (Bull 2007). Accompanying these transformations are changes in the ways people experience music and the spaces and places they occupy. In the 1950's, hand-held, battery operated transistor radios brought newfound mobility to music, as musician Neil Young observes in the epigraph to this section. With the invention of the Sony Walkman in the 1980s, and the Discman in the 1990s, people could *choose* the music (and not just the stations) played on the device. The "digital revolution" of the new millennium brought mobile phones and pocket-sized MP3 players that hold thousands of songs in digital format.¹ These PLDs (most notably iPods) enable individuals to create portable, personalized music playlists that affect the ways in which users inhabit and constitute different spaces (Bull 2005). Introduced by MacIntosh in late 2001, iPods immediately became popular among consumers, who valued them for their portability, storage capacity, listening options, and overall "sleekness" in comparison to the Walkman (Bull 2007; Coleman 2003; Levy 2006). iPods have become visual and acoustic accessories to users' daily travels.

The presence and impact of PLDs are manifest in varying ways in different contexts. In the broader societal context, PLDs have changed the way people fill and shape the spaces they inhabit, how they interact with different publics, and how they relate to music. While the

more public, shared listening experience has not completely been replaced over the past decade or so, the introduction of PLDs (perhaps most notably iPods) has created a highly individualized listening process.

Although PLD use is becoming widespread among urban populations, youth and young adult generations tend to remain at the heart of the PLD phenomenon. More specifically, post-secondary students (who typically range between the ages of 17 and 30), such as those I interviewed, have led the digital revolution as early adopters or early majority users of MP3 players and other nano-technologies (see Chen 1998; Ferguson, Greer & Reardon 2007; Shane 2000). Music is vital to identity-building experiences of many individuals in the population represented by my sample, perhaps more than older generations (see Chen 1998; Frith 1996; Ferguson *et al.* 2007).

Ferguson, Greer, and Reardon (2007) draw from a range of consumer studies on post-secondary students to argue that PLDs have become embedded in the everyday lifestyles of young adults. Indeed, “students seem to live with the technology that has become part of their routine” (107). The authors note that students have a strong affinity to iPods and other MP3 players, and that they are crucial to this demographic’s cultural identity, alongside other socio-cultural activities like “drinking beer” (107). Similarly, Chen (1998) writes that Walkmans, precursors to MP3 players, are social forces that reconstitute spaces and inform social relations. As I argue in this thesis, PLDs mediate the bus’s social environment, and the effects vary according to their *use* and *interpretation*.

Although the use of PLDs in urban environments remains relatively under-investigated, Michael Bull’s recent work on personal stereos and iPods establishes a strong base from which future research on PLDs can be undertaken. Known also as “Dr. iPod,” Bull

¹ In this thesis, I use the term PLD primarily to describe MP3 players, but the PLD phenomenon still includes less recent technologies, such as the Sony Discman or Walkman.

has followed the evolution of what he calls “personal stereos” (2000) in urban environments, using interviews with PLD users to understand how personally-selected music shapes their everyday experiences. In the following section, I provide an overview of Bull’s findings as they pertain to my research, and explain how my investigation expands and departs from his work.

Groundwork by “Dr. iPod”: Michael Bull’s Contributions

Personal stereos might be conceived of as an urban tool used by ‘urban’ dwellers enabling users to extend their mediated behaviour into many environments previously inaccessible to privatized listening.

Michael Bull (2000: 17)

Michael Bull’s research is at the forefront of a growing body of literature on personal listening devices (see also Beer 2007; Chen 1998; Chow 1993; Coleman 2003; Cosentino 2006; Levy 2006; Ferguson *et al.* 2007). His work provides an analytical overview of these technologies, spanning from personal stereos to iPods, and examines their uses in different spaces such as streetscapes and automobiles.

Bull’s research relies on interviews with PLD users as a primary source of information (see also DeNora 2000). He questions listeners about their musical practices, reasons for PLD use, and the impacts of these technologies on their everyday lives. His interviews reveal values of mobility, portability, privacy and autonomy, and a desire to exercise some form of control over everyday commuting experience. An underlying theme in his work is the notion of ‘mediated isolation,’ which he uses to describe a form of isolation that is secured using headphones and personal music without physically removing listeners from public or crowded locations.

Noting that urban experience is heavily shaped by “solitariness and the daily movement of people” (2007: 5), Bull explains that people seek to create an isolated, yet

mediated, experience during their everyday travels throughout the city. They bridge a desire for privacy with a social need to be in the presence of others by using PLDs to mediate their daily activities. The portable size of the devices, accompanied by individualized headphones, provide a means to achieve solitude; PLDs are used as filtering tools that change how different aspects of users' lives are experienced and interpreted. According to Bull, one of the reasons people value PLDs so highly is that they allow individuals to carve out a privatized space for themselves without being fully disconnected or isolated from the social context of public space (see also Augé 1995; Katz & Aakhus 2002; Tonkiss 2005; Tuan 2001).

PLDs have become so integrated into Bull's participants' daily urban routines that they find "unmediated" experiences threatening (2007). Users become accustomed to having a personal soundtrack accompany them as they negotiate urban spaces, and particularly appreciate the opportunity to have some control over the sounds they hear, as well as the effects their music has on their mood. Furthermore, PLDs create a continuous listening experience that has the effect of "filling" time that is otherwise perceived as empty or less meaningful (Bull 2007). The theme of 'mediated isolation' also pervades the narratives of my research participants, who use their PLDs to mediate what they perceive to be the social hazards of riding the bus (for example, the potential for embarrassment, as discussed in Chapter Three).

Another key theme in Bull's research, which complements 'mediated isolation,' is the notion of 'management.' Bull's interview participants identify music as a tool to manage their moods, thoughts, and awareness of their surroundings (see, for example, Bull 2005; 2007). At another scale, the visibility of headphones also helps to manage social interaction, as they are frequently read as a signal of desired privacy.

In his first book on personal stereos, *Sounding Out the City: Personal Stereos and the Management of Everyday Life* (2000), Bull develops the concept of management by showing

that personal stereos and their accompanying music transcend existing boundaries of space, place, and time. He argues that this form of listening allows individuals to respatialize their experience, combining perceptions of proximity and distance, creating new spaces, and reconstructing existing ones. The 'acoustic bubble' formed through the use of headphones and personal music blurs the concepts of public and private space by creating a highly individualized experience of a public setting. Bull claims that music serves as an 'auditory mnemonic' (2000: 19), reminding listeners of places of personal association, such as their homes, or allowing them to create new memories that become attached to their current locations. He also identifies a de-routinization or re-appropriation of time (2000; 2005; 2007), suggesting that music is used as a time-management resource. In the following statement, Bull recognizes two key ways of managing time:

Users can either package time into segments, moving towards the journey's end, or concentrate on mood maintenance that overcomes the journey time. Users sometimes record the same piece repeatedly onto the same tape or repeatedly rewind to listen to the same piece in order to achieve this level of time suspension...

(Bull 2000: 56)

Bull argues that personal stereo users feel restricted by industrialized time, which is exemplified by the work timetable, and find that personal music provides the opportunity to regain some control over their lives by de-routinizing time. The mixing of work or commute time with a sense of leisure time alters their overall experience of time, space and place.

Bull's research lays the groundwork for future studies on personal listening devices, and is a key resource for this thesis in both empirical and theoretical terms. Indeed, I have used his findings in developing some of my own interview questions and analytical tools, and to inform my theorizations of acoustic space. Despite my study's debt to Bull, it departs from his work in three major ways. First, although Bull identifies a number of different commuter spaces in his research, including public transit and the private automobile, his studies do not go into detail about the characteristics of the sites themselves. My research focuses in detail

on a specific site of PLD use: public transit. I closely examine the properties of public transit through interviewing and observing the site to identify connections between music and transit as two different but overlapping types of ‘vehicles’ (see also DeNora 1999; 2000), and to understand why public transit is a particularly popular site for PLD use.

Secondly, as in the case of much scholarship on music and place, there is little mention in Bull’s work of how places and mobile technologies mediate the experience of *music*. Bull is primarily interested in the *use* of PLDs, and to a certain extent, the context of the urban environments in which the devices are used. I argue that the relationship between music and place is multi-directional; accordingly, my interview questions were designed to explore the co-constitutive processes that occur when music becomes deeply integrated into urban environments like the city bus. I share Bull’s interest in use and context, but I also provide a treatment of musical *content* as it was discussed in my interviews. Taking DeNora’s (2000) approaches of examining *personal* experiences with music into consideration, I combine musicological and sociological analyses, in the context of spatiality. Such an approach is necessary to investigate my third research question, which explores how PLDs affect musical *and* spatial relationships on the bus. My participants’ narratives demonstrate how space shapes music, and how music shapes space; they also allow me to discuss the implications of PLD use for theorizations of acoustic space.

Finally, in constructing his analysis around the central concept of ‘mediated isolation,’ Bull pays little attention to the possibilities that PLDs create for new types of social interaction. In Chapter Five, I develop this idea in passing, suggesting that PLDs certainly influence the way people engage with each other, but this does not mean that social interaction is completely erased; instead, it allows us to consider how music, sound, and

technology can be used to create new relationships.²

I have used a qualitative research methodology to explore the complex and situated experiences of personal listening practices, public transit, and social behaviour. In the following section, I outline the importance of qualitative research methods to scholarship on geographies of music. I then explain the role of in-depth interviews and observation in my research and provide an overview of my sample and sampling technique.

Methodology

Qualitative Research and Epistemological Framework

My research questions articulate an interest in the ways humans interact with their environments, other humans, music, and mobile technologies in the context of public transit. Furthermore, my questions recognize and rely on interpretations of personal experience. The main method of my research, in-depth interviewing, was selected because it allows participants to provide in-depth detail about their lives, enabling me to find patterns among narratives while also embracing individual voices and experiences. My qualitative methodology is bound to epistemological foundations that acknowledge the political and subjective nature of knowledge and experience.

Music, although often part of a shared experience, has highly personal meanings and values attached to its use. Similarly, people have different backgrounds in the contexts of

² My project was motivated by an attempt to identify how PLD use might facilitate the formation of new social relationships, and some interview questions were designed specifically to address this notion. However, my interview material did not provide me with enough data to develop this third distinction in as much detail as the others, and this idea is therefore only tentatively developed in Chapter Five.

public transit and mobile technologies, and it is therefore crucial to approach these engagements with methods that embrace their individuality. My research methodology allowed individuals to share and shape their situated knowledge, and I recognize that their experiences and interpretations do not fully represent those of any social group.

Scholars conducting research on music and its associated meanings and uses have begun to challenge certain approaches that fail to incorporate the experiences of everyday music listeners, and that rely instead on arguably more-removed assumptions about these listeners (Bennett 2000; DeNora 2000). Theodor Adorno (1990 [1941]), for example, is commonly cited for his treatment of musical and sociological theory, in which he explores musical meanings and social impacts (see also McLary 1991), but his work falls short in demonstrating how the *uses* of different forms of music reconstitute both music and social space. While Tia DeNora recognizes the importance of Theodor Adorno's contribution to studies of music and social management (see, for example, DeNora 2000; Adorno 1941), she is one of many scholars who criticizes his lack of empirical research to support his theorizations. Arguing that music is "a technology of self" (2000: 46), she underlines the usefulness of observing and talking to people whose everyday lives and identities are in some ways mediated by music and sound. To support her epistemological position, she quotes Sarah Cohen: "focus upon people and their musical practices and processes rather than upon structures, texts or products illuminates the ways in which music is used and the important role that it plays in everyday life and in society generally" (Cohen 1993: 127, in DeNora 2000: 7). I heed DeNora's and Cohen's advice by placing interview narratives at the centre of my analysis and conducting in-depth discussions that allow participants to think critically about their behaviour on public transit in the midst of personal listening devices.

John Sloboda (2005) articulates the importance of qualitative approaches that recognize both content of music and the context in which music is experienced in studies on

music and its everyday use, acknowledging that the two are often difficult to disentangle.³ It is crucial, when studying music in general and listening practices more specifically, that we acknowledge the mutually-constitutive relationship of content and context, as varying combinations of each can lead to entirely different experiences (see, Connell & Gibson 2002; DeNora 2000; Frith 1996). My interviews were designed with this relationship in mind, and I think that my personal observations about social behaviour on public transit reduce the risk of overlooking certain aspects of the social environment as it is mediated by music technologies.

I have grappled with the difficulty of getting people to talk about music. Many people are *eager* to talk about music, as it is often and important part of their everyday lives in some capacity; however, for many (myself included), putting an intense relationship with music and its associated emotions, values and meanings into words is immensely challenging. The impacts, evocations, and experiences of music can never be fully explored by any methodology, but there are strategies that offer useful entry points into such a complex discussion topic. I tried to design my interviews to allow participants to talk through their experiences, encouraging them to add and re-evaluate their points as they discussed particular themes. As Hoggart, Lees, and Davies, note (2002: 211), “Intensive interviews at least provide the interviewee with time to explore assumptions and habits, even if some aspects remain hidden.” My interview questions, discussed in the following section, were designed to encourage thoughtful and critical responses.

³ In this thesis, “content” refers to the lyrical and musical (for example, sonic and rhythmic) elements found within a piece or type of music. When I use the term “context,” I am referring to the various social, cultural, economic, and political processes through which music is situated. This might include, but is not limited to, the context in which the music is produced, or the context in which music is consumed.

Sample and Sampling Techniques

Over the course of five months, in-depth interviews, between 1-2.5 hours in length, were conducted in person with eleven students who travel to and from Brock University on public transit a minimum of three return trips per week. My only additional criteria for participants were that they either used a PLD for most or all of these trips, *or* that they had access to one but made the choice to ride the bus without a PLD. Reflecting on what I considered to be my own positionality as a Brock student, “part-time” iPod user, and public transit rider, I felt confident that I would be able to recruit willing participants. My association with these three characteristics reduced the possibility of being viewed as an outsider, an assumption that is often made of the researcher in ethnographic research, and one that can create an undesired barrier between the researcher and the subject (Mullings 1999).⁴ I got the sense that most participants were comfortable speaking with me about music and PLDs because it was like having a casual conversation with a peer. Although this perceived relationship allowed me to establish a sense of trust with potential participants, I was also careful to be critical about the challenges that might arise; I will return to these shortly.

Participants were recruited through a combination of targeted and snowball sampling, because I was interested in a very specific group of individuals and was also aware that my participants could potentially help by identifying other willing and suitable participants. I aimed for a roughly equal distribution of men and women but did not turn away participants in order to meet this objective. Of the eleven participants, five were male and six were female.

⁴ Mullings (1999) also acknowledges the problems of being an insider, which creates a situated experience that might influence the researcher’s ability to critically question and interpret information.

Interview Process

Each interview participant⁵ was asked to share their experiences with using public transit to travel to and from Brock University. It was therefore a sampling requirement that these individuals made use of one of three major transit routes that use the university as a hub: Brock-Glenridge (Route 16/116), Oakdale-Pen-Brock (Route 4), and Brock-Pen Centre (Route 122). Each of these routes travels through residential areas with dense student populations, and accesses other areas of the city, such as shopping centres and the downtown core.

The interview process was similar for all eleven participants, with slight variations that accounted for each participant's relationship with PLDs. I developed two guides that I felt best represented my sample; one interview guide was for student transit riders who used PLDs during their commutes to and from Brock, and the other for student riders who traveled without PLDs.⁶ Where possible, questions were similar in both guides unless they were part of a topic that I felt only related to one group. The interviews were semi-structured to ensure that the main topics were addressed, yet they were designed to encourage open-ended discussion that allowed reasonable deviation to occur as unanticipated thoughts or emphases emerged.

I began each interview with a discussion about the participant's PLDs to get a sense of the models and various settings or features, and how each individual uses his or her device. Interviewees who did not use their PLD on the bus were still asked to explain their listening practices in other spaces. The first section of the interview, titled "Personal Listening Devices and Music Preferences" also included questions about participants' attitudes toward music, how they associate with music and certain cultural identities such as the "iPod Generation",

⁵ Participants have been given pseudonyms to protect confidentiality.

⁶ See Appendix 1 for the "user" interview guide, and Appendix 2 for the "non-user" guide.

and their sources for obtaining music. Participants whose lives were saturated with personal music chose to elaborate on different questions than those who claimed little association with music other than hearing it as “background noise.” In my analytical chapters, I will return to this variation in responses.

The second section of the interview was designed to understand my participants’ experiences with public transit, and includes questions about their past and current use of transit, sensory observations about transit journeys, opinions and values about public transportation, and their familiarity with the surrounding areas along their transit routes. I then asked a few questions to get participants thinking about soundscape and to assess their knowledge on the topic. This allowed me to explore how my participants understood the role of sound in their everyday experiences, so that I could then use the soundscape discussion to address acoustic properties of transit that may have been overlooked. In this short section, I asked about the kinds of sounds participants associate with particular settings, including St. Catharines, urban environments, spaces with a high concentration of Brock University students, and public transit. I was interested in getting a sense of how the interviewees perceived different soundscapes in case this had some bearing on their feelings about the use of PLDs. I then asked about the level of control each participant felt he or she had over these soundscapes, and concluded the section with a conversation about the perceived importance of creating a personal soundscape, in preparation for questions about the use of PLDs on public transit.

This more in-depth conversation about PLDs on public transit was designed to learn how and why participants use PLDs in this particular setting, and how the characteristics of the public transit experience (both inside and outside the vehicle) affected listening practices. Individuals who did not use PLDs were asked why they did not use them on public transit,

and to offer opinions on why they thought other people felt the need to bring their devices along for the ride. Both groups were asked questions about their awareness of different aspects of the experience, including other riders, interior and exterior observations, and the passing of time. Participants were once again encouraged to describe their experience with reference to a combination of senses, as they saw fit.

The final portion of the interview addressed social interaction and behaviour on public transit, and the ways this is affected by the presence of personal listening devices. Participants were asked to describe their interaction with other riders, expectations for behaviour in this public space, and interpretation of the behaviour of other riders. In the latter part of the section, I asked participants to offer opinions on how they react to situations that involve the music from other riders' headphones "escaping" the earbuds and becoming public. This led to value-laden discussions about personal space, as well as public space- or PLD-etiquette.

At the end of each interview, participants were given the opportunity to add anything that may have come to their mind as the interview progressed. The interview guides were designed so that the last two sections, which had arguably more complex questions, could encompass many of the points mentioned in the first half of the interview. I realized, therefore, that by the end of the discussion some participants might feel as if they could answer an earlier question in more detail after thinking more about the topic. Interviewees were also encouraged to ask me questions at the end, and were welcomed to make statements that were not directly addressed by my questions, but that they felt they should share. This was done out of recognition that the students had likely reflected on PLD use in their everyday lives before coming to the interview, and may have come to their own theorizations about various aspects of the topic that they wanted to flesh out. Indeed, their stories and interpretations were insightful in ways I had not previously considered. After I transcribed

the interviews, I gave each participant the opportunity to clarify any misunderstandings or misrepresentations in the transcript, and to add or omit points as they deemed necessary. Only two of my participants – Logan and Claire – made any changes.⁷ Logan provided me with a quantitative observation of the ratio of PLD users to non-users on one particular day of riding the bus. Claire chose to omit a comment in her interview, as she did not feel it represented her other opinions.

I treated each interview as a shared knowledge experience, which is why I often refer to them as “discussions” or “conversations.” Unless I was asking participants about their backgrounds or personal experiences and preferences, I tried to conduct the interview as candidly as possible, which meant that I also took the opportunity to offer my own comments where appropriate. At times, this involved posing a possible interpretation of the participant’s or other riders’ behaviour in hopes that it would spark further conversation. This was done very carefully; I did not want to speak for my participants and I was aware that the perceived power relationships between us might influence whether or not they agreed with me (Mullings 1999). I made every effort to make the participants understand that they should not feel that I expected or needed them to agree with me. Rather, I found sharing my own opinions to be an effective way of generating further discussion about something they may not have actively considered before. As a critical geographer, I recognized the opportunity I had to question more deeply some aspects of the participants’ experiences that might have otherwise been overlooked.

I also made an effort to indicate that I was still fairly new to the subject of MP3- or nano-technology, and that I did not approach the interview with a level of expertise that

⁷ Eddie, a non-PLD user in this thesis, later told me that he acquired an MP3 player since doing the interview. At that time, however, he did not feel that his limited use of his device was enough to justify making any changes to his interview responses.

should be perceived as intimidating. I wanted to put my participants at ease, and to break down barriers that may have been assumed to be present between researcher and subject. In fact, many of my participants were more familiar with the functions of their PLDs than I was with my own iPod, and the first section of the interview became an opportunity to learn about the different uses and features of various models.

Although each interview followed one of the two semi-structured guides and some participants had similar experiences with either PLDs or public transit, the responses varied considerably in tone, length, and emphasis. The different backgrounds and “lenses” with which each participant approached the interview resulted in very different interpretations of my questions, and allowed new routes of discussion to emerge. Although patterns emerged among the interviews, and I strive to give shape to them, I recognize that people’s experiences are varied. It is for this reason, and the broader epistemological principles it requires, that I try not to treat the interview data as a universal representation of either my sample or the broader groups with which participants are associated; rather, I embrace the different experiences and subjectivities, and try to retain each participant’s individuality as much as possible throughout the thesis while still pointing out their similarities.

Public Transit as a Complex Research Site

A focus on public transit provides an entry point into various forms of negotiation that are practiced in the most densely populated public spaces. Urban transit is simultaneously dynamic and constraining. On one hand, it is a physically-mobile, “open” space with a high turnover of passengers that enter and exit at various times. On the other, it is physically-bounded, as passengers are generally forced to accept that they cannot leave the vehicle until it reaches a particular destination. This space seems to reflect a certain lack of control for the individual, particularly in terms of passenger composition and the ability to secure personal

space. Like other public spaces, diverse groups of people use transit for various reasons and to reach specific destinations, creating a site of difference that may be met with mixed emotions. In my analytical chapters, I use interview data to expand on the apprehensions participants associate with this complex environment.

To understand the context behind my participants' experiences with using specific St. Catharines Transit routes, I conducted systematic observations along each of the three routes specified above. This was done to complement the interviews, which comprise the main source of information for my research, and to get a sense of the degrees to which personal listening devices are present on public transit.

Observation

Observations on board public transit vehicles were conducted over a two-week period in March 2009. The data collected included observations about the physical layout of the study site, landscape and soundscape features of both the interior and exterior of the vehicle, as well as riders' behavioural practices. Observations were conducted at a different scale than the interviews, as they had a broader focus that was not intended to retain riders' individuality.

Observational techniques helped me identify a relationship between how people appear to behave on public transit and how they perceive or rationalize certain behaviours in the interviews. Furthermore, they enabled me to expand my field of study to explore the activities of a larger group of people. This was not done to downplay the importance of my eleven interview informants, but rather to place them within a set of broader social behaviours. Observation allowed me to become aware of certain characteristics and interactions that may have gone unnoticed by my participants.

This observational strategy also gave me the opportunity to determine how common a

practice personal listening was on public transit, and how this may have been influenced by the time of day, type of route, weather conditions, and density of ridership at specific stages of the route. I rode each route at peak hours and less busy periods of the day, for varied lengths of time. Some trips began at the starting point of a route and ended at its other hub; other trips involved boarding the bus at other locations along the route to understand further the experiences of interview participants whose transit journeys were shorter than the entire route.

My own experience with using public transit in St. Catharines began in 2003 as an undergraduate student. Since then, I have taken an estimated 1500 trips around the city, most of which have been on one of the three routes identified in this study. Until 2007, I either rode transit with a Sony Discman, or without the accompaniment of music. Since receiving an iPod as a gift in 2007, I have brought it on most transit trips. Long before developing the research problem for this thesis, I already had experiential exposure to PLDs on public transit. The informal observations made in the past half-decade or so have had some influence on the development and outcome of this project.

My Own Subjectivity

My own relationships with music, mobile technologies, public transit, and post-secondary education have undoubtedly had a formative influence on the topics I found captivating and the discourses I have used to shape and explain my research. In many cases, my relationship with the various groups represented by my sample yielded benefits to the interview process as I felt I could identify closely with the narratives of my participants. As I was most interested in routes that use Brock as a hub, I could relate to experiences and descriptions of most of the routes mentioned throughout each interview. My teaching background in issues of public transportation and public space also aided my research design,

because I had already been introduced to varying interpretations of these topics.

I was also cognizant of the epistemological challenges that my positionality might pose. Although my previous experience with PLDs in public space piqued my interest in studying this topic, I did not want my everyday observations and interpretations to influence my questions too heavily, or to establish explanations that might cause me to overlook other avenues of thought. Furthermore, if the participant and I both agreed on a particular interpretation, I had to be careful not to assume that this was the only way of thinking about the topic. It was important for me to remind my participants that I am not an expert on any of the matters discussed. I realize that I am part of a continual learning process that benefited from an exercise of co-constituted knowledge, and in each interview I acknowledged my gratitude for learning more about my research topic from my participants' narratives.

Conclusion

Each research question, outlined at the beginning of this chapter, is designed to understand how and why people use PLDs in the context of public transit, and the different effects of this activity on the bus experience. Furthermore, my research questions help me explore theories of sound and spatiality, particularly in the context of soundscape and acoustic space, and to develop the notion of acoustic space. I argue that my interview responses present opportunities to identify kinaesthetic, or multisensory, characteristics of space, and that PLDs influence how these spatial properties are experienced. In doing so, I demonstrate the importance of incorporating the acoustic into our understandings of space. In the following chapters, I explore how PLDs shape my participants' experiences along their bus journeys. Where appropriate, this involves identifying patterns that emerge throughout the various narratives; in other instances, I highlight the individual experiences and opinions of Claire, Jake, Isabella, Logan, Eddie, Sarah, Ian, Ruby, Tom, Angela, and Jill.

Track Two

Conceptual Frameworks: Soundscape and Acoustic Space

My research is guided by a sense that geographical scholarship requires a stronger appreciation for the acoustic in everyday experience. Although the relationship between space, sound and music remains under-represented in geographical studies, a number of scholars have attempted to develop these topics. This chapter reviews some of the research that gives *sound* a central focus in order to develop a conceptual framework for the thesis. A treatment of the acoustic, primarily from a geographical perspective, provides a useful launching point for the following empirical chapters, as well as an important set-up for Chapter Six, which explores how PLD use can be understood in the context of acoustic space.

The chapter has two main sections. In the first section, I discuss the usefulness of *soundscape* as a geographical concept (see Schafer 1994), describe the soundscapes of St. Catharines and public transit, and then introduce how PLDs are a reconstituting response to those soundscapes. In addition to creating a basis for understanding my participants' acoustic experiences on the bus, a discussion of soundscape is a useful starting point for getting at the more complex notion of *acoustic space*.

The second section of the chapter provides an overview of conceptualisations of *acoustic space* (see Bull 2007; Cavell 2002; McLuhan 1988, 2004; Smith 2000), which branch in two main directions. First, acoustic space is theorized as ontology; that is to say, space has acoustic properties, which co-exist with other sensory properties, and which contribute to the organization of spatiality. I think that an ontology of acoustic space can be used as an epistemological tool through which to explore relationships between music, space and self. Thus, secondly, acoustic space is an epistemology. I attempt to explain that one way to *know* about space is to pay attention to its acoustic properties, and that individuals learn

about space partly through sound. I use Michael Bull's term "acoustemology" to explore how people use sound in ways that allow their worlds to "become intimate, known, and possessed" (2007: 21, 47). Embracing Susan Smith's work on sound, I argue that understanding spatiality only according to visual properties causes us to overlook its rich acoustic properties (see also Schafer 1994).

This chapter offers an introduction to the growing body of literature on sound and spatiality, which provides useful context for understanding the empirical findings discussed in Chapters Three through Five. However, acoustic space is a highly complex topic that requires more questioning and analysis than I can provide in a thesis that is also intended to address the empirical aspects of PLD use on public transit. Bearing this in mind, I put explicit reference to acoustic space aside at the end of this chapter and return to it in the concluding chapter, where I am better equipped to re-evaluate the concept after having discussed how PLDs both retrieve and suppress acoustic properties of space.

Soundscape: Beyond soundproof landscape

Sound has been silenced in geographical explorations of landscape. While the study of landscape has been crucial to the discipline's involvement in the cultural turn (Smith 1994), a privileged focus on sight has obscured other opportunities for interpretation, including sound (Connell & Gibson 2003; Kong 1995b; Leyshon *et al.* 1998; Smith 1994, 1997, 2000). In this section, I interpret soundscape as one such opportunity for geographical interpretations.

My particular focus on sound in this chapter is not to deny the role of other senses in our understandings of our world. Indeed, other scholars have explored such sensory opportunities, moving beyond the notion of landscape, though not dismissing its importance. Douglas Porteous (1990), for example, explains that landscape is not solely visual; rather we can describe our environmental experiences in relation to smellscape and soundscapes, and

Porteous even includes extra-sensory notions, such as childscapes, in his research. Kara Hoover (2009: 237) focuses specifically on geographies of smell, and notes scent's importance as a mnemonic device, writing: "Odour is just as provocative as visual stimuli in creating and inducing memories." Yi-Fu Tuan (1993), addressing sensory and cultural experiences of space and place, highlights the importance of layered 'sense-scapes.' Bearing these ideas in mind, we must remember that the bus experience includes all of the senses, though of course to varying degrees. In the thesis, I have chosen to isolate the acoustic, and to some extent the visual and tactile, because PLDs are mainly used for their sonic purposes but have visual and tactile functions and effects. In this section, I will focus solely on soundscape, but will return to a more encompassing discussion of sensory experience in the following section on acoustic space.

Description and Usefulness of Soundscape

Murray Schafer, who first introduced us to the term "soundscape" in the 1970s, defines it as "any acoustic field of study" (1994: 7). Adding to, and somewhat departing from, Schafer's rudimentary definition, Emily Thompson (2002: 1) writes that soundscape is not just a physical environment shaped by sound, but is also a way of perceiving a sonic environment; like landscape, she states, "it is both a world and a culture constructed to make sense of that world." As Thompson explains (2002: 1), our understanding of soundscape must include an interpretation of the properties of the sounds themselves, but also the surrounding material objects in an environment that further give shape to, or perhaps destroy, these sounds. According to Schafer, acoustic fields of study can include intentionally-produced sonic events, such as concerts or songs, but soundscape can also refer to unintentional acoustic events that result from sonic combinations. People do not ride the bus primarily to experience it as an acoustic event, as they might if they attended a musical concert, but nevertheless, the

bus can be analyzed as a soundscape that combines different sounds, ranging from human voices to engine vibrations to surrounding traffic sounds. Schafer (1994) writes that thinking about soundscape requires us to open our ears, or in his words, to become “earwitnesses,” in order to *hear* events in our everyday lives. Combinations of sounds shape the constitution of different spaces at the same time that they are being influenced by other non-acoustic elements of those spaces.

Hearing is a social act that involves categorizing and organizing sounds along with other sensory input (Attali 1985; Frith 1996; Smith 1994; Thompson 2002; Wittkower 2009; Yang & Kang 2005). We therefore use our recognition of different types of sound to identify, classify, and attach meaning to space. Sonic patterns develop across spaces – for example, hearing the roar of planes taking off and landing at an airport – however, this does not mean that soundscape is fixed. In other words, sounds can be stitched together at least temporarily, but the difficulty in containing sound can also reconstitute it as discontinuous, meaning that sounds may come and go in an inconsistent manner, and do not always flow continually through a given environment. Because sound is fluid, suggesting that it can travel in different directions and for long distances, sounds that are often associated with one particular space can overlap with other sounds or extend through different spaces. An airport, for example, may only be *seen* from a short distance away, but *heard* over a much greater distance, working itself into the soundscapes of other spaces and creating an acoustic space at a larger scale.

Without wishing to deny the presence and importance of soundscape in rural locales, I focus primarily on soundscape in the context of urban spaces because my research site, public transit, is more closely associated with urban life. Urban environments are constantly being (re-)shaped by multi-layered soundscapes. In almost all “peopled” environments, combinations of sounds work in synchronicity and dissonance with each other, and become

difficult to untangle. Although the acoustic environments of urban centres have changed greatly over the last few hundred years (see, for example, Thompson 2002), we can still identify what Schafer (1994: 9) defines as *keynote sounds*, *signals* and *soundmarks*.

Keynote sounds of a place, as Schafer describes, are those that may go unnoticed due to their ubiquitous presence. Schafer's definition identifies environmental sounds which are produced by a place's geographical characteristics, such as water and wind, but with the increasing role of technology in our world, we can also include ever-present technological sounds, such as the hum of electrical wires on the street or ventilation ducts in an office. Keynote sounds are useful to my research to the extent that these sounds are considered by my participants to be "indigenous" or "organic" in the context of the bus environment. If certain sounds are perceived as indigenous, then other sounds can be interpreted as non-indigenous, or out-of-place. When people classify sounds in this way, they use soundscape to inform broader social norms and assumptions about different spaces. I return to this idea in Chapter Five; there, I explain that while the hum of the bus's engine was tolerated because it was constantly part of the bus's soundscape and was therefore, in some regards, a keynote sound, music that "leaked" out of another rider's headphones was perceived as "invasive" by my participants, because it was expected that personal music would be individually contained within the listener's ears. While the increasing presence of PLDs and their associated sounds may create new keynote sounds, hearing another rider's music is more bothersome than louder continuous sounds because other riders may find it impossible to hear them as background sounds. In other words, the keynote sounds are keynote when they are *experienced* as such, which highlights a subjective process that depends as much on socio-cultural constructions of sound as it does on the properties of the sound itself.

Schafer describes *signals* as consciously-recognized foreground sounds. Examples of signals may be sirens, a mobile phone ring tone, or a piece of music. These signals are

different from keynote sounds in the way they are heard; signals are not interpreted in the same way by all who hear them. The relationship between keynote sounds and signals is important because it is continually in flux, as the soundscape is constantly reshaped by different combinations and volumes of sound events. This creates tension between what people identify as “background” and “foreground” sounds, and creates dynamic acoustic experiences. Finally, according to Schafer, *soundmarks* are community sounds that are heard and understood to have special meaning to members of that community; as such, they are often labelled as worthy of protection (1994: 10). Examples of soundmarks might be the sounds associated with a particular musical scene in a given neighbourhood, or the sounds of lions calling to each other at night. The notion that soundmarks are worthy of protection is important because it implies that sounds are value-laden.

Schafer’s terms, particularly when considered in the context of personal listening devices, are not static and should not be used as mutually exclusive categorizations. Rather, they are useful heuristic tools for exploring the sonic environment. Because sound can be discontinuous and difficult to control, definitively categorizing specific sounds as keynote or signal becomes a troublesome and perhaps futile task. Music is a particularly compelling example of the relationship between different types of sound, because we may hear a piece of music as a song that has a holistic sound, as in an overall sonic impression, or as a combination of different sounds. Indeed, we might hear certain *types* of music, such as contemporary jazz, as keynote in a restaurant, but within a piece, we might also identify certain instruments within a contemporary jazz song as signals. Once again, it depends on *how* the music is heard, a process that is heavily influenced by a complex relationship between musical content and context (see Connell & Gibson 2003).

Listening is a highly subjective endeavour, and is always embedded in a broader set of social relations. Values, identities, and meanings are attached to specific sounds and their

various combinations, such as those that produce music, and these social attachments are affected by the contexts in which they are heard (Frith 1996). This process of attributing value, identity, and meaning to sonic events is highly contested because it works alongside varying socio-cultural discourses. Soundscapes can therefore be studied for their reflection of power relations that influence how we constitute and interpret our everyday spaces.

Although the observations made by the ear cannot be as easily controlled or “turned off” as those of the eye, the ear has “an elaborate psychological mechanism for filtering out undesirable sound in order to concentrate on what is desirable” (Schafer 1994: 11). In addition to these psychological mechanisms, we have found ways to use technologies to organize or filter sounds, and we also attach *meaning* to sounds, which is part of a cultural process of interpretation. This thesis focuses on one of the most powerful tools for achieving “desirable” acoustic states that are sometimes perceived as more meaningful than others: the mobile personal listening device and its accompanying headphones.

In the chapters that follow, I discuss the emotions and opinions my participants attach to particular soundscapes associated with my research setting. This involves examining personal listening devices as tools that help people shape soundscapes for *themselves*, and as technologies that emit other and less private types of sounds, such as feedback or clicking, which then become part of the public soundscape. To gain insight into why students might wish to alter a particular soundscape with personal music, I asked questions about different types of soundscapes in urban centres, in St. Catharines specifically, and on transit; these responses will be discussed in more detail in Chapter Three. The following section provides a preliminary interpretation of how sound shapes my research setting in different ways.

Soundscape at Multiple Scales: The City, St. Catharines, and Public Transit

The city is a heterogeneous mix of sounds, and the overlapping of these sounds produces a polyphonic and polyrhythmic sonic texture. In other words, certain sounds and rhythms combine to produce very diverse soundscapes, which are perceived variously by different individuals. Sounds that are not considered to be related, such as a car honking and an orchestra playing a symphony, for example, might be experienced as a dissonant or “clashing” combination by one person, while another individual might interpret this fusion as pleasurable juxtaposition. The fluidity of sound makes it difficult to control because it can travel around and through material objects, and because urbanites are mobile themselves, a person’s perception of the sonic environment can shift rapidly.

St. Catharines is much smaller in size and population than its neighbour, Toronto. Arguably, its soundscape is not as loud, polyrhythmic and diverse as we might expect in larger metropolitan areas. However, this small urban environment is a complex set of sounds, with many of the same keynote sounds and signals that would be expected in most medium-sized North American cities. As a largely automobile-dependent city, traffic-related sounds are seemingly ever-present in outdoor spaces, but also permeate many indoor soundscapes.

Public transit buses, which travel along designated streets in St. Catharines, influence soundscape in multiple ways. The sounds produced by vehicles contribute to the soundscape heard along transit routes. A rider’s aural experience is mediated in part by the volume of these vehicular sounds, such as roaring engines or screeching brakes. A bus sounds different from inside it than it does if hearing it from an external location, and people might use personal listening devices while walking on the street to drown out the sound of a loud bus; however, the focus of this thesis are the sounds heard from the inside of the vehicle, in the context of non-acoustic features of the transit environment.

Public transit buses are useful to examine in the context of soundscape because the characteristics of vehicles influence which sounds are produced, heard, muffled, and silenced. The contained structure of a vehicle amplifies and diminishes different sensory stimuli, creating a highly dynamic situation (Taylor 2003). These fluctuating and multi-layered sensory experiences affect individuals' constitution of either the vehicle or the areas through which it passes, and that constitution is always subject to change.

The ability to consciously block out particular sounds that contribute to a broader soundscape is largely psychological (Schafer 1994). In other words, it is not as easy as shutting one's eyes, but it is possible to filter sound (see Bull 2007). Even without a conscious desire to disregard certain sounds and acknowledge others, an organization process occurs that is largely based on familiarity and normalization (Schafer 1994; Thompson 2002). Sounds that a rider becomes accustomed to hearing on a commute may eventually become so familiar or unremarkable that they are not consciously heard. It is for this reason that I inquired into my participants' personal transit history, as it allowed me to better understand how their interpretation of soundscape on their journeys is influenced by their perception of certain sounds. Those who have recently begun taking public transit hear the vehicle's engine in a different way than those who have become accustomed to its continual presence. Therefore, for those consciously experiencing it as a "new" sound, the engine sound may be a *signal*, while for long-term riders, it has become normalized and engrained into the transit experience as a *keynote sound*, going largely unnoticed in comparison with other sounds. This prioritization of sounds points to a process of acoustic organization that I later explore in Chapter Six as part of a discussion about acoustic space. PLDs, as filtering objects (Bull 2007), contribute to this process of acoustic prioritization.

PLD use as a Response to St. Catharines Transit

The use of PLDs adds to the complexity of understanding the acoustic experience of transit, as a listener has some degree of control over which sounds are blocked out or amplified, and the level of consciousness with which they are experienced. An important point that emerges out of this is that the *soundscape* becomes more complex with PLD use, but listeners' *experience* of soundscape is simplified through mediation. Music, which is a fusion of sounds that generate and attract their own accompanying sets of socially-prescribed values and meanings (Frith 1996), contributes additional layers to the acoustic experience. PLD users on the bus bring with them existing socio-cultural interpretations of their music, that, when combined with other non-musical events and observations along their commute, can create dynamic acoustic experiences.

Personal listening devices, with their various volume options, affect which sounds become normalized, and which are considered to be unauthorized (Leppert 1998) or 'out of place' (Cresswell 1996). They provide an opportunity to rearrange sounds and create personally- and socially-accepted sonic hierarchies. Furthermore, they are embedded within spatial processes in ways that have gone largely unexamined by geographical scholarship. These acts of organization are explored in depth at various points in the remaining analytical chapters.

The ability to describe the acoustic properties of a given space – the soundscape – is a first step in allowing us to understand how that space *shapes*, and is shaped *by*, a sonic environment (Connell & Gibson 2003). Soundscape is therefore a useful tool for understanding the broader concept of *acoustic space*, which is more concerned with how space shares the properties of sound. In the following section, I shift from a discussion of soundscape to one that explores spatiality using an acoustic sensibility. A treatment of

acoustic space requires us to think about ontological properties of space, and epistemological frameworks used to explain the relationship between sound and space.

Acoustic Space

The remainder of this conceptual chapter is an introduction to the under-explored topic of acoustic space that provides some theoretical context for the analytical chapters that follow. Acoustic space, as a geographical concept, is still in its emergent stages. First, I explore the ontological notion of acoustic space, arguing that space includes sound, and as a result, space has the *properties* of sound (Cavell 2002; McLuhan 2004; McLuhan & Carpenter 1960). Secondly, this ontological conception is then used to establish an epistemological framework that can be used to identify relationships between music, place, and self. In other words, acoustic space allows us to explore what Bull (2006; 2007) describes as an “acoustemology” of urban experience, meaning that one way to *know about* space is to pay attention to its acoustic properties. Sound is an important way that individuals learn about space, and therefore affects how people constitute and appropriate space.

Acoustic Space as an Ontological Concept

Theories of acoustic space emerge out of a growing concern that conceptualizations of space have been predominantly visual. Scholars are increasingly making the argument that space exists “*outside the realm of the visual*” (Cavell 2002: 21, emphasis in original; see also Bull 2000; McLuhan & McLuhan 1988; Revill 2000; Smith 1994, 2000). In this section, I explore literature that describes how sound structures space, but also how space shares similar acoustic properties as sound. This will allow me to explain the need for auditory epistemologies (Bull 2000), or what Bull (2006) later identifies as an “acoustemology” of

experience, which can be used to prevent preoccupations of the visual from drowning out acoustic properties.

Marshall McLuhan (2004; McLuhan & Carpenter 1960; McLuhan & Parker 1968; McLuhan & McLuhan 1988) is a key figure in the conceptualization of acoustic space as part of his broader contribution to scholarship on popular culture and communication (Cavell 2002). After learning about a blind person's experience of space, McLuhan began to explore ontological properties of space that departed from a visual perspective and moved towards an acoustic interpretation. Cavell (2002: 21) documents McLuhan's argument, stating, "visual space was only one kind of space," acknowledging that visual interpretations were not necessarily futile, but should be expanded to create room for the acoustic.

McLuhan presents his theory of acoustic space from an ontological entry point, stating that space has acoustic properties. If space includes sound, as McLuhan argues, then space is also constituted sonically. As such, he argues that acoustic space lacks an identifiable centre and a set of definitive margins (2004; McLuhan & Carpenter 1960; see also Cavell 2002) because sound itself is resonant and gyroscopic. Recognition of sound's indifference to fixed boundaries is crucial to an interpretation of acoustic space. We cannot see through buildings, but we can hear sound through them, and, it is argued, sound moves *through us* as something that is more closely connected to the nervous system (Cavell 2002; McLuhan & Parker 1968; Schafer 1994; Simmel 1997). Sound, therefore, is not subject to the same barriers, blockages and trajectories that are present using a visual perspective. McLuhan (2004) explains that acoustic space is also discontinuous; acoustic properties of space are not static, and come and go in different ways. A useful way of thinking about discontinuity in an acoustic space context is to refer to Tricia Rose's (1994) treatment of flow, layering, and rupture in hip hop expression. Although sounds are layered and fluid, and not all sounds are fleeting, they can also become disconnected from the environment or the listener's ear to

create a ruptured, or discontinuous, experience. This alters the space through which sound events occur. McLuhan also identifies nonhomogeneity as a characteristic of acoustic space, and this is largely because space is multi-layered with acoustic and non-acoustic properties (see also Rose 1994). In the following section, I explain how space, like sound, has multi-layered, co-constitutive properties.

Sound and Spatiality: Co-constitutive Properties

As discussed above, sound moves and is therefore fluid, sound is non-linear, in that it is multi-directional and gyroscopic, and, unlike visual stimuli, sound is not easily enclosed by boundaries. Michael Bull (2000: 116) argues that “the audible is intangible, unlike vision which more often than not focuses on objects,” and highlights sound’s transitory nature. As Connor (1997) writes, the origins of sounds are difficult to identify. This is particularly evident in urban environments where there is heightened potential for diverse technological sounds, such as those from traffic or audio equipment, to overlap and create *new* acoustic events.

Unlike visual objects, sound can be overlapped without being omitted from sensory experience. Its reach is difficult to measure, because it is multi-directional. Acoustic space is open, because sound is not fixed by boundaries (McLuhan 2004). It is syncretic, because it is shaped by a fusion of multi-sensory properties; dynamic changes to these syncretic combinations mean that acoustic space is also constantly being (re-)produced. The multi-layered properties of acoustic space are not limited to sound. While it is rooted in sound, acoustic space is constituted by interplays between different senses, which McLuhan posits as ‘audile-tactile’ (Cavell 2002; Marchand & Postman 1998). He argues, “tactility includes all the senses, as white light incorporates all colours” (McLuhan & Parker 1968: 55). A multi-sensory interpretation allows us to rightfully acknowledge the visual without neglecting the

role of other sensory experiences (Bull 2000). In other words, space is surely shaped by visual properties, but space is not *only* visual, and visual properties are intertwined with other multi-sensory elements in the notion of acoustic space.

Nigel Taylor (2003) examines the notion of a multi-sensory experience of urban life through a discussion of traffic. Taylor's description of urban life as it is mediated by traffic is similar to my own research setting of public transit. He argues that the aesthetic experience of traffic is multisensory, in that it is constituted by a combination of sensory observations, and is therefore kinaesthetic, meaning that these multi-sensory experiences also occur in and as motion. While Taylor does not address acoustic space specifically, these characteristics all reflect an acoustic sensibility of space. Urban experience, like sound, is fragmented and discontinuous, yet always in motion. People move throughout the city to fulfill daily tasks and are met with myriad sensory observations along the way. Cities are shaped by the rhythms of movement, which contributes to how people experience different aspects of their journeys. In the chapters that follow, I consider how the characteristics of public transit are worked into an interpretation of acoustic space. The mobile, transient properties of the transit experience, combined with the acoustic and non-acoustic characteristics of PLDs, are crucial factors in this discussion.

If we think of space using all of the above-mentioned acoustic terms, such as multi-sensory, kinaesthetic, and unfixed, there are parallels with Doreen Massey's (2005) suggested approaches to space as open, rather than closed. She argues that space is produced by interrelations and that it holds potential for multiplicity as a sphere of "co-existing heterogeneity" (2005: 9). In other words, if we think of space as having unfixed boundaries and being constituted by a variety of sensory properties, there is potential for the existence of diverse, rather than homogeneous, populations, knowledges, and appropriations. Massey continues by stating that space is always being remade, and as such, is never closed or static

(2005; see also Lefebvre 1991 [1974] for more on the production of space). I would argue, therefore, that the constructions of space that McLuhan conceives share important characteristics with Massey's, despite the fact that the term 'acoustic space' is never cited in her influential book, *For Space* (2005).

Massey's spatial notion of "co-existing heterogeneity" seems to resonate with acoustic space because of the way we experience sound. Simmel (1997) argues that hearing is a more inclusive act than seeing, because the ear is not as discriminating an apparatus as the eye. If sounds are overlapping and multi-directional, and we *experience* them as such, then I would argue that when we appreciate properties of sound and hearing for their metaphorical purchase, we might discover potentialities for more diverse appropriations of space. Indeed, as I explain in the context of PLD use, music allows people to explore different facets of identity at once, creating opportunities for more varied experiences.

Sound and music, therefore, also help us to make sense of our surroundings. So far in the chapter I have summarized the ontological properties of acoustic space. I now situate it within a discussion of epistemology. I begin by reiterating the need to move beyond the visual bias of our interpretations of space, and then explore how sound is used to shape and create knowledge about our world, emphasizing that this knowledge is subjective and partial because it is constructed based on our interpretations of multisensory and unstable environments.

Acoustic Space as an Epistemological Terrain

Approaches to the interpretation of spatiality reflect and influence how people constitute and engage with their world (see, for example, Blesser & Salter 2006; Cavell 2002; Massey 2005; Smith 1994, 2000). Expanding our understandings of spatiality to include the acoustic therefore offers new opportunities for understanding the complexities of spatial interaction.

As Attali (1985: 6) argues, “More than colours and forms, it is sounds and their arrangements that fashion societies.” I take this to mean that acoustic experiences are especially rich, because of the potential for sounds to overlap with each other, and with non-acoustic properties, while visual properties of space are perspectival and are perceived optically as separate objects with fixed boundaries. As McLuhan and Parker argue (1960), sound is not only acoustic; because it consists of vibrations, it is also tactile, creating an even more complex set of properties. To better understand the significance of Attali’s statement in the context of acoustic space, I now turn to consider how sound affects the knowledge that is created to interpret and shape our everyday urban experiences. I begin by addressing what Susan Smith (1994), among others, has identified as the ‘visual bias’ in geographical epistemologies. I then draw on the influential writing of Michael Bull (2000, 2006, 2007) to explore and advocate an acoustic epistemology of experience.

Sounding Off on the Visual Bias

Susan Smith is a key figure in the criticism of geography’s ‘visual bias’ (1994; 1997; 2000). She states, “Geography is, after all, a quintessentially visual enterprise, traditionally using observation as the route to knowledge, and regarding sight as the measure of truth” (Smith 1997: 503). Even in art, a highly expressive and multisensory field, the visual has been privileged to such a degree that it has silenced sonic interpretation of everyday experience. Feminist geographers discuss “the gaze” not only as a visual way of understanding the world but also as a discursive process that reproduces unbalanced and contested power relations, which also shape how people experience their environments (see, for example, Rose 1993, 1996; Dondo 2007; Smith 1994; Sui 2000). This visual bias is troubling to geographers and scholars from other disciplines (see Bull 2000, for example) who advocate for a more inclusive and hybridized understanding of spatial experience, not

least because visual description is exclusive to those who can see (Golledge 1993). Indeed, a blind individual is no less a part of urban life than a person with working vision, nor can we say that he or she does not experience space. Our interpretation of individual experience will benefit from the recognition that our lives are shaped in different ways by a combination of senses (Attali 1985; Bull 2000, 2004, 2007; Erlmann 2004; McLuhan & Parker 1968; Porteous 1990; Schafer 1994; Smith 1994, 1997; Sui 2000; Thompson 2002). This concern about an exclusionary scholarship is one of Smith's (1994) three major criticisms of the visual bias, along with its neglect of the role of other senses in the constitution of space, and its subsequent exclusion of *music* as a major art form from the 'cultural turn' of human geography.

To reiterate a statement made in the introduction, visual characteristics of the public transit environment remain crucial to this study, my participants are part of a "predominantly visual culture" (Sui 2000; see also Burnett 1995, Yang & Kang 2005). Indeed, when we combine sound with sight, we create a very different experience than that which is constructed by focusing on one of these senses. Hearing a particular sound, for example, may elicit certain visual images in our mind based on what we might imagine is producing the sound, or the visual characteristics of a place that are triggered upon hearing that sound. An interpretation of PLDs combines both sight and sound; they exist as material objects that are seen by the user and other people, and playing music through headphones is part of a listening process, changing the way the acoustic environment is experienced. As I will explain in the chapters that follow, it is often challenging to separate the two aspects of the experience. Putting visual properties of space aside for now, I will return to the topic of sound specifically, to discuss the importance of an "auditory epistemology of urban experience" (Bull 2000: 115).

“Acoustemologies” of Experience

Music is more than an object of study: it is a way of perceiving the world. A tool of understanding. (Attali 1985: 4)

Sound is one of the essential ways for us to perceive and communicate with the world. (Yang & Kang 2005: 61)

Bull writes, “through the power of sound, the world becomes intimate, known, and possessed” (Bull 2006: 184; see also 2007). In other words, we use sound to learn about different aspects of the world, to constitute different environments, and to appropriate these environments in myriad ways. Sound gives us clues that help us make assumptions about certain spaces and the people who occupy or are associated with those spaces. Traffic sounds such as honking horns and squeaking brakes, as my participants informed me, help to define an area as urban. Hearing shouts and laughter at high-pitched levels might tell us that a schoolyard is nearby without even seeing it. Music, as an example of sound, can be used to colonize or appropriate a given environment. Certain types of music are played in malls, for example, to attract some social groups while attempting to exclude others (Connell & Gibson 2003). I understand Bull’s statement, quoted above, to relate to my own research in a number of ways. Of these, I wish to pull out four key connections.

First, Bull acknowledges that our world is full of acoustic experiences that allow us to understand and explain it. As mentioned previously, Bull offers the term “acoustemology” to express the notion of auditory epistemologies, arguing that there is a need to explore how sound is used to create knowledge about and shape urban experience. In the remaining chapters, I examine how music from personal listening devices influence the constitution of a particular urban public space and its surrounding environment, and relate this process to the capacity to transform soundscape and rearrange acoustic space using personal music.

Secondly, to continue with the above “acoustemological” position, we must also acknowledge the tools for acquiring knowledge when sound becomes central to an

interpretation of life experience (Schafer 1994). If we are to accept that acoustic space is audile-tactile (Cavell 2002; McLuhan & Parker 1968), then we must recognize the ear as an apparatus that combines sound and vibration to receive and transmit to the brain information about an environment (Bull 2000; Schafer 1994; Simmel 1997). To borrow a term from Schafer (1994: 8), we become “earwitnesses” of our experiences. However, sonic vibrations do not just affect the ear, and the entire body is therefore part of the acoustic experience, including the previously-mentioned nervous system. These learning tools are different from those that are used in accounts of visual space. The individual in pursuit of knowledge is located differently, as sound is taken *in*, moves *through*, and *encapsulates* our bodies, while vision operates by observing outwards and can only focus on objects in limited directions (Bull 2000, Cavell 2002; 2006; 2007; Schafer 1994). Again, this is not to discount vision as a key source of spatial information, but if we only favour the epistemological characteristics of visual space, we neglect a multiplicity of factors that can help us to interpret urban experience.

Thirdly, sound and music elicit different emotional responses to different types of environments (Cohen 1998; Frith 1996; Leyshon *et al.* 1998). The various properties of sound, as well as the musical, lyrical, and contextual aspects of music, affect the meanings and feelings we attach to the environments in which they are heard; in other words, sound is a crucial component of our constructed understandings of place. As previously discussed, we use sound to think about the environments we occupy and the human and non-human encounters we have along the way. Through sound, we create assumptions, whether justified or not, about a situation or place; for example, we might interpret a siren as a signal of distress, or as an indication of a crime-ridden neighbourhood. Using sound as a source of information about an environment, or its social characteristics, is therefore political because it is part of a contested discursive process wherein pre-existing sets of knowledge are used to

(re-)constitute that environment. Sound can serve as a mnemonic device, reminding us of past experiences and allowing us to reproduce or re-evaluate knowledge made about a given situation. Furthermore, different combinations of sound at different times have the potential to change an individual's attachment to a given place, even if the visual characteristics do not appear to have undergone much change. Sound and music create a tension between intimacy and distancing, bringing people closer to or further from different aspects of their surroundings.

Bull's statement informs my analysis in a fourth way by recognizing that we use sound to appropriate space in different ways, which is often a contested process. An ambulance siren, for example, can be used to create a hierarchy of vehicles on a road, colonising the road in a way, as non-emergency vehicles are forced to give up their driving space upon hearing the alarm. A musical example of territoriality is observed in Bennett's (2000) study of Afro-Caribbean youth in Birmingham. He highlights their use of reggae and bhangra music in urban streetscapes to claim a cultural space and foster a Rastafarian identity (Bennett 2000; see also Connell & Gibson 2004; and McEwan *et al.* 2005, for a discussion about transnational identity and music). As I will argue in the analytical chapters, a similar, though not identical, process occurs when an individual adds his or her music collection to a public environment through personal listening devices. PLD use is a highly individualized form of appropriation, and creates privatized experiences of shared space; however, in Chapter Five, I discuss some of the problems that arise when individual, acoustic appropriations of space overlap with one another. Using sound to appropriate space is political because it is never universally accepted and is therefore a contested process, and it leads to practices of inclusion and exclusion as certain groups use sound to exercise control over people and spaces.

We use sound to inscribe spaces with socially-constructed meaning (Attali 1985; Bull 2000, 2006; 2007; Cohen 1998; Connell & Gibson 2003; Frith 1996; Leppert 1998; Williams 2001), and these meanings are constantly in flux along with the transitory properties of acoustic space. In utilising an auditory epistemology of experience, I acknowledge that the production, interpretation, and organization of sound are inherently political. With this in mind, I now turn to focus on the empirical findings of my research, and focus more specifically on how *music* is used to constitute environments, and the resulting social implications. Music represents a collection of sounds, rhythms, ideas, places, cultures, and values, and the ways in which we consume music has a considerable effect on our interpretation of our surroundings. PLDs therefore add a further element of complexity to the already-nuanced political processes which operate through acoustic space.

Conclusion

I have outlined the ways that sound and spatiality are connected throughout this chapter, first by presenting a description of *soundscape* and its various uses, and secondly by introducing the concept of *acoustic space*, which has ontological and epistemological components. This chapter is necessary for understanding why I address multi-sensory experiences of public transit in Chapter Three, and serves as a reference point for discussions about acoustic properties of the transit experience in each of the other analytical chapters. I return to the notion of acoustic space in the concluding chapter, where I demonstrate how PLDs retrieve acoustic properties of space that are overlooked in visually-dominant explanations of space, but also how PLDs in some ways also suppress acoustic properties through a sonic filtering process.

In the following chapter, I embark on an empirical examination of how my participants experience the space-time of public transit. Doing so necessitates a discussion of

the bus's acoustic properties. I also explore a combination of sensory characteristics and extra-sensory processes associated with the bus environment. Although several of my participants told me that the bus journey is meaningless or mundane, certain aspects of their narratives point to quite the opposite.

Track Three
“Why I’d Drive a Car if I Could”: Experiences of Space-Time on Public Transit

There is no typical transit journey.

(Eddie)

The bus ride is repetitive and can be incredibly mundane... until you find a way to make it interesting.

(Claire)

The purpose of this chapter is to discuss how people experience the space/time of public transit during their daily commutes. I describe how and why my participants use public transit, and reflect on their impressions of bus travel as they experience it. In doing so, I explain the material and emotional context for PLD use, thereby laying groundwork for the analysis that will be developed in the remaining chapters.

Although I describe a range of experiences in this chapter, it is evident that most of my participants are similar in that they would prefer not to take the bus, but do so mainly for financial and environmental reasons. Several of them approach their daily commute with apprehension because they identify the bus as a site of potential embarrassment and social awkwardness. Not surprisingly, my participants’ experiences are guided by context that is much broader than simply the bus ride; they enter the bus with existing opinions, values and expectations, and these can shift or solidify based on a range of contingencies.

The chapter begins by providing a brief overview of the main reasons my participants use public transit rather than other modes of transportation. This will offer insight into some of their personal feelings about taking the bus, which is useful to understand the emotional context that influences their experience of the bus journey, and why some might therefore wish to mediate their experience with a PLD.

The second section discusses the kinaesthetic characteristics of the commute. Drawing from the interviews I describe my participants’ experience of the bus as a multi-

sensory, mobile environment. Public transit, as its name suggests, is transitory, but there are other aspects of motion in play. Different sensory properties combine and fill the space in various ways, passengers move throughout the bus, and the motion of the bus affects balance. These overlapping, fluid properties constitute the bus as a kinaesthetic environment, which affects the types of observations my participants make about the space-time of their bus commute.

After discussing the kinaesthetic properties of the transit vehicle, I discuss my participants' understandings of the vehicle as physically constricting. As a relatively small space designed to accommodate a dense ridership, the bus is prone to crowding, requiring passengers to sit or stand in tight quarters. This crowding contributes to what participants experience as an uncomfortable or embarrassing social environment. The inability to leave, or in their words, "escape", the bus before it reaches a desired destination leaves some of my participants with additional feelings of unease.

Researchers note that people are increasingly disconnected from a collective experience of public space, moving through public space individually and avoiding certain forms of social interaction, such as eye-contact and conversation (see, for example, Schivelbusch 1977; Sennett 1994; Simmel 1997; Tonkiss 2005). In the fourth section of the chapter, I demonstrate how my participants experience the bus as a "chilly" space (Bull 2000, 2007), characterized by anonymity, indifference and hostility. My participants' descriptions of their bus journeys show that most riders refrain from social interaction; indeed, conversation seems to be discouraged, and most people seem disconnected from the bus environment.

Finally, I draw on my participants' narratives to show how the bus reproduces certain properties of control and constraint that shape the material and social environment of daily commutes. Several of my participants expressed frustrations about factors that are both

beyond their control and that *control them* while riding the bus; I will examine how the bus's physical layout, as well as the social codes of its riders, reproduce notions of control and individuality, which can be as constraining as they are enabling.

The issue of embarrassment weaves through this chapter as an underlying problem that my participants associate with the bus. Many of my participants' responses were developed in relation to an understanding of the bus as a site with high potential for embarrassing and uncomfortable encounters. Riders' preoccupations with avoiding embarrassment affect how they occupy and behave on the bus, which highlights the journey as a constant process of negotiation. However, despite being a deep concern for my participants, the social problems associated with the bus are not enough to stop them from using it. In the next section, I explain why my participants use the bus, and how these decisions might influence the transit experience.

“I Pay for the Bus Pass, So I Might As Well Use It”: Reasons for Riding Public Transit

Most participants would prefer the comfort and control of a car, but they take the bus because it is cheaper. All full-time Brock University students receive a Universal Access Pass (U-Pass), which is included in their tuition fees (at a cost of \$120-\$145 since its inception in 2003). Jake, who rides the bus each day to work at Brock, explained that he eventually intends to purchase a car, but uses the bus because he has the U-Pass:

I use it to go to school, to go to work, and because it's free with my U-Pass. I don't want to buy a car yet because it's expensive...

Sarah is an upper-year Modern Languages (French) student who, like Jake, uses the bus daily. Unlike Jake, however, Sarah owns a vehicle, which she does not drive to school

“because gas is expensive, and I pay for the bus pass so I might as well use it.”

Secondary to expense as reasons for using public transit are issues related to

environmental consciousness and convenience. As Ruby, a graduate student, noted, it is more environmentally-friendly for 40 students to take a bus than to drive individual vehicles to school. Isabella echoed this sentiment, and explained that her attitude has been shaped by experience in a post-secondary institution that encourages environmentally-conscious lifestyles:

Especially being in university, knowing more about what the car does to the environment, and how it changes the way people behave, that makes me feel a lot better about taking the bus.

Isabella has been using public transit in St. Catharines since she was a young child. Her transit experiences are more positive than those of other participants. When asked if she thought her positive attitude to public transit might be related to grown up using transit and approaching it willingly instead of reluctantly, she agreed that it probably had. She is also the only student who listed exercise as a benefit of public transit, as she has to walk roughly 15-20 minutes to her bus stop. Others viewed this as a negative requirement of public transit, but she welcomed the opportunity to get outdoor exercise before going to school each day.

Convenience played a role in several students' decisions to use public transit, particularly those who traveled shorter distances to the school. Ian and Ruby have bus stops outside their front doors and the bus drops them off directly in front of the main entrance to the university. Eddie, a 'mature' student in his late twenties, noted the convenience of not having to drive:

...that's a benefit to riding the bus, is that you just sit there, you don't have to worry about traffic and shitty drivers. You sit there, and when your stop comes up, you get off. So it's very liberating in some ways to ride the bus, versus driving, because you don't have to be as connected from the road. You know, you're disconnected from the road... you're on it, travelling, but you don't care about the traffic laws. That's not your responsibility, it's the driver who's worrying about that. I'm just sitting there, so I don't care if someone's braking in front of me or not signalling because I'm not paying attention to that.

Not having to operate the vehicle allows riders to experience different aspects of the

environment than the driver, as they are able to make multi-directional and multi-sensory observations instead of paying close attention to the road. Indeed, my participants' responses would be much different had they not been able to focus on both interior and exterior aspects of the transit environment. Riders can also choose to disconnect themselves from their surroundings, which I later argue contributes to the bus's "chilly" atmosphere.

Having briefly outlined the context for why people use the bus and their feelings about their decision, I will now turn to the four major sections of this chapter, which help explain how my participants experience the space-time of public transit. Eddie raised an important point that the ability to ride the bus as a passenger without having to focus on the "rules of the road" allows individuals to focus on a combination of other sensory and social experiences. Although my participants filtered these combinations in different ways, each of their interviews pointed to a common conclusion that the bus journey is a kinaesthetic experience; I will begin with this finding.

"On the Move": A Kinaesthetic Experience

All the world seems to be on the move. Asylum seekers, international students, terrorists, members of diasporas, holidaymakers, business people, sports stars, refugees, backpackers, commuters, the early retired, young mobile professionals, prostitutes, armed forces – these and many others fill the world's airports, buses, ships, and trains. (Sheller & Urry 2006: 207)

One of the most significant aspects of public transit is that it is experienced as a mobile environment. The transit-space is embedded in a broader urban lifestyle characterized by movement, as Sheller & Urry (2006) describe in the epigraph. Cresswell (1997) uses a 'nomadic metaphor' to demonstrate the fluidity and mobility of urban experience, filled with constant, though fragmented, encounters, multi-layered networks, and rich sensory stimuli (see also Sui 2000). In this section, I explore these kinaesthetic properties of the bus

experience.

Sensory stimuli, when occupying a moving bus, are layered in various ways. The structure of the vehicle acts as a barrier to acoustic qualities of the surrounding exterior environment, and simultaneously encloses certain interior sounds, making them seem louder and more noticeable to passengers. Exterior sounds that are able to permeate the interior soundscape are experienced as fleeting, because the vehicle is moving past the acoustic sources at too high a rate of speed for them to be heard as complete sound events. However, as McLuhan (2004) and Schafer (1994) argue, sounds overlap in a layered effect, so the exterior soundscape creates a continuous, if fragmented, acoustic experience. According to Jill:

...if I was walking, you hear cars go by, but it's different... not a constant sound because you really hear them approaching and then passing... versus on a bus where you kind of hear it the whole time, but it's a different sound... like a dull sound that's always there so you don't pay attention to it. I think everything is just... almost more overwhelming... on the bus, because there are so many sounds you can't get away from.

The speed of the bus and the structure of the vehicle combine discrete, discontinuous sounds to create a blurred, continuous acoustic experience that is different from what pedestrians hear. As Jill, a Business major, observes, riders might be less attentive to this "dull sound" because of its continual presence, leaving them to focus on other qualities of the environment.

In addition to being a site of layered sensory properties, the city bus has a discontinuous ridership with passengers entering and exiting the vehicle at different stops. It has a continual flow of transit users who encounter each other temporarily in time and space, and thus contribute to each other's experience of the transit journey. Claire noted how the movement of other passengers on the bus affects her own ride:

Riding the bus can be pretty difficult sometimes. Especially if you're standing... you have to constantly shift to allow people to get on and off the bus, or to make sure that

you're in a good spot where you can reach a bar to hang on to, or reach the cord. The bus is moving, and you're moving, and *other* people are moving.

This dynamism constitutes the bus environment as a constant site of negotiation, and contributes to its character. As Claire mentioned, riders are not only concerned with their own movement on the bus, but are also influenced by the movement of other passengers.

The problem of balance adds to the kinaesthetic experience in a tactile way (Taylor 2003). Once on the bus, riders are forced to move, stand, or sit with caution as the vehicle changes speed or direction. This is a particular challenge of public transit, because it can be physically-straining on individuals and leads to socially awkward contact with other riders, or losing balance in front of peers. In this regard, issues relating to balance are also experienced as *embarrassment*. My participants were clearly preoccupied with the frequent possibilities for embarrassment on the bus, and did not want to draw unwanted attention to themselves as a result of the challenge of maintaining balance. Tom explained, "It takes off before you sit down, so you trip over a few people, you're trying pretty hard to keep your balance, and maybe you end up standing." Jake seemed even more concerned than Tom about the potential for balance-related problems to cause embarrassment. "I don't want to fall on the bus. I know what it's like to fall on the bus [laughs] and falling in general is just not enjoyable... falling on the bus is embarrassing..." he stated, speaking from experience. Issues of balance are experienced through embarrassment and social awkwardness.

The need to maintain balance while moving through a crowded mass in a confined space also influences riders' abilities to pay attention to other aspects of the transit environment, including music playing on PLDs. According to Tom,

... it's sort of like drumming. If you drop a drumstick, it interrupts your playing, and you have to figure out how to get back into it while getting the stick off the ground. I've gotten used to that idea of having to multi-task, so maybe it helps me get used to that kind of thing on the bus, having to keep my balance while still being able to enjoy the music. But it's definitely a bit of a challenge. When you're always balancing yourself, or if you have to react to people getting on or off the bus, it takes you away

from your music for a little bit, so it might hinder your experience.

As Tom shows, the kinaesthetic experience of transit creates constant potential for distraction, which influences *how* my participants experience their commute, and as I will demonstrate in Chapter Five, their ability to attend to the music they bring along for the ride.

The exterior environment of the vehicle is also experienced *in* motion and *as* motion. The bus travels past people and other objects that are moving, and its own movement makes static objects *appear* to be in motion. The result for people looking through the windows is a fragmented and somewhat blurry view of the passing landscape. The speed of the vehicle influences depth perception and restricts passengers from observing certain aspects of the exterior environment with detail, which creates new perceptions of the landscape for passengers (see Schivelbusch 1977). Jill told me:

If the bus is moving fast enough, you're never able to focus on everything. Your eyes have to shift so that they either focus on specific things and don't bother with a lot of detail, or you stare out the window without paying much attention to anything, so you just see a blur of objects.

The perceptions of landscape that a dynamic transit environment creates affect riders' overall experience of the transit space, a point I will return to in Chapter Five, where I show how the visual experience of landscape is co-constitutive with the acoustic experience of soundscape.

The public transit vehicle is part of a mobile environment, but it is also characterized by elements of immobility and constraint. In the next section, I describe how my participants interpret public transit as physically constricting, and the effects that this has on their perception of the transit-space.

“Trapped” on the Bus: Immobility and Inescapability

Seats on the bus are set close together, creating tight quarters, especially when the vehicle is close to capacity and riders are standing in the aisles. As Eddie described, during peak hours,

“the bus is *ram packed*.” Furthermore, the bus differs from other public spaces, such as parks, because passengers are generally forced to remain in their seats or standing position without being able to move to new spaces with ease. Although individuals have the ability to exit at any stop along the route, doing so before reaching their destination might defeat the purpose of the commute. This adds to the sense of immobility a person experiences once aboard the bus and creates the impression of entrapment.

This section explores the notion of entrapment in two key ways. First, I consider the spatial characteristics of the environment, which my participants describe as constricting and crowded. I then examine how my participants feel temporally-trapped inside a space that they perceive represents “wasted time” between two more important events or space. Although I treat space and time separately for organizational purposes in this section, I recognize that they are in fact interlocked in a close relationship. My participants’ experiences of space/time on public transit have important social implications, which are weaved throughout this section.

At peak hours, there is a strong likelihood that buses along a Brock route are at full capacity, making it difficult for passengers to move about freely. Participants dislike how their personal space is constricted and frequently “violated” on the bus, and experience this as a loss of control. Personal space, in this regard, was primarily described in terms of physical crowding on the bus. Each of my participants identified personal space as a particular problem of public transit. Tom began a discussion about personal space by stressing its importance, stating, “I like personal space, I think it’s important. If you don’t have your personal space, you’re going to go insane.” However, he went on to acknowledge that personal space varies in different environments:

But, you have your personal space at home and you have to understand that when you get on the bus it’s not going to be the same, because everybody is using it, and it’s a pretty small space. You can’t expect to have your one metre of space. There’s a certain

extent – you should try to be courteous to people on the bus, and not push against them if there's room to move around.

Like Tom, most of my participants recognized that the material characteristics of the bus were different from other everyday spaces, and that they had to adapt to the bus's crowded setting. Logan wondered if different interpretations of personal space on the bus contributed to social tension:

I think there *is* personal space on the bus, but you have to recognize that it's going to be different from what you have at home. I don't know, maybe people don't understand that, and that's why they get frustrated with each other, which makes it seem like such a hostile place.

The notion that people's expectations about personal space are a source of tension on the bus does not necessarily mean that my participants each had *different* understandings of personal space; rather, they all had similar expectations, but the constricted space of the bus simply cannot accommodate everyone.

Eddie explained that personal space on the bus changes depending on the situation. He told me that understandings of personal space are different on St. Catharines Transit than in Japan, for example, and that people cope with limited personal space in various ways:

Certainly in different societies... like you go to Japan and they will *pack* you on a subway car, and people are okay with it. And the way they deal with it is that there's a total *lack* of interaction... you can be shoulder-to-shoulder, 360 degrees, with nine people touching you, and everybody's looking at the floor [...] I think, when you have a bigger personal space, you're less tolerant. I'm not tolerant when people invade my personal space, it's not cool with me... I don't like it. There's no need for it, I don't like it.

Eddie's observations about personal space on the bus are supported by examining how people sit on the bus. On my frequent bus trips, I have noticed that individuals who enter the bus try to find an empty seat before they will share a pair of seats with another rider, highlighting a conscious form of negotiation between passengers. Indeed, as Angela told me, "if there's a lot of space on the bus, you're expected to space yourselves out by taking a seat in an empty area before sitting next to a person." Angela and Eddie both follow this social code when

possible, and feel uncomfortable when a person sits beside them when they feel it is unnecessary.

Eddie provided a useful understanding of the close relationship between personal space and sensory experience. He told me, "...there's a number of ways your personal space can be invaded on a bus, and I think they correspond to the number of senses you have." Eddie suggests the bus's constricting qualities implicate more than just bodily contact. He acknowledged the roles that scent and sound play in addition to physical or tactile interpretations of personal space, through the examples of sound leaking from headphones and the use of perfume. He understands these different sensory experiences as extensions of personal space that are similar to each other, and expresses his frustration with the loss of his own space in the three following ways:

I don't need to hear your iPod, I don't need to smell you, you don't need to sit next to me on a vacant bus.

The physically-constricting layout of the bus creates an overcrowding of smells and sounds that extend beyond their sources and permeate the space of the vehicle. The confined structure of the vehicle creates a mediated acoustic environment with sounds blending in different ways to create a syncretic listening experience. Several of my participants indicated that the combinations of sounds on a bus can be overwhelming. Jill described the soundscape of public transit as inescapable:

I think everything is just... almost more overwhelming... on the bus, because there are so many sounds you can't get away from.

When asked about his understanding of soundscape, Eddie shared a story about standing in the hallways of Brock University with his eyes closed, actively listening to the sonic environment, and related this experience to that of public transit:

...when you listen, there's so much going on... so much information you can ascertain audibly, that it's so hard to make sense of it all. Walking the halls at Brock, and it's the same thing on the bus, there's a lot going on in terms of soundscape. I found it to be

overwhelming, I had to try to shut it off... there's *too much* going on [...] The soundscape was overwhelming, it was too much to take in.

He continued by describing the fluidity and complexity of soundscape, and acknowledged the effect of a dense public on the acoustic experience:

Sound is definitely fluid. You can have so many sounds in the same space, so how do you discern them? How do you pick it all apart? The soundscape of public places is just so much more exaggerated because there's more people and so many different things going on... so much more overwhelming.

Tom echoed Eddies' observations about the layering of sounds on the bus, and used the term "chaotic" to describe its soundscape. He felt that acoustic chaos was heightened when it was combined with the sight of passengers crowding onto the bus and trying to secure their desired seats. Several of my participants noted, however, that the soundscape is often only overwhelming in this way when they stop and consciously think about it. This points to what Sheller and Urry (2006) describe as a process of desensitization or detachment stemming from a richness of stimuli in urban environments. If these stimuli are so overwhelming on the bus, as Tom and Eddie suggest, one way to cope is by ignoring or becoming desensitized to certain sensory experiences. In the remaining chapters, I show how PLDs are used to aid this process of detachment.

The experience of the commute was also affected by the direction of passengers' journeys. Some participants noted that a crowded bus leaving the school was less frustrating than a dense bus approaching school, because it was leaving a site associated with stress and bringing them home to a more relaxing environment. Indeed, Jake observed that passengers seem to be in a worse mood when they travel *to* school than when they leave:

For what I see, it's just always really crowded, there's always people standing on the morning buses. A lot of people don't look very happy, probably because they're going to school or work.

Ian also acknowledged the importance of destination in the experience of the bus journey, and described the bus as a hostile environment:

It seems like the bus is a hostile place, sometimes. Unless you're going out at 11:00 at night on the 116, when everyone's drunk and going to a bar, then it's the social place to be, and everyone is having fun, except maybe the driver [laughs]. But otherwise, everyone is so straight-faced, like they're pissed off or something.

Riders are sensitive to the perceived or displayed mental states of fellow passengers. They dislike the bus because the general aura of hostility they feel spoils their own journey and their mood. Tom indicated that he interprets the hostility he senses on public transit as a negative aspect of his experience, because it has the tendency to worsen his state of mind and make him want to get off the bus as quickly as possible.

My participants frequently discussed a desire to escape the vehicle. As Sarah noted, the inability to get away from fellow riders is a source of frustration:

It's just the fact that I can't get away from them on a bus, there's no escape, it drives me crazy. You feel like you're trapped by that person, that you can't really get rid of them.

Sarah's remarks point to a connection between escape and control. Being unable to control who sits beside her and feeling "trapped" by them leads her to want to escape the vehicle. Indeed, several of my participants said that they try hard to get a place on the bus that allows them to escape quickly from the vehicle when they reach their stop. This involves sitting or standing near the doors when the bus is relatively full. This focus on escape is also a product of the bus's constitution as a commuter space, whose main purpose is to transport people, rather than provide a meaningful social environment. Most participants would agree with Eddie, when he says, "It's a way for me to get from A to B... and I have to get on and off as efficiently as possible." In other words, the bus is valued primarily as a transitory space, rather than a social space.

The notion that public transit is less meaningful to my participants than other spaces is important. As Eddie noted, people seem more concerned with using the bus to get somewhere else, than as a site for social interaction. In the following section, I borrow

Michael Bull's (2007) term to describe the public transit environment as "chilly" and pair this concept with a treatment of "interspaces" (Hulme & Truch 2006). This will allow me to explore the implications of my participants' perceptions of the bus journey as less meaningful than other environments.

Transit as a "Chilly" Environment

I don't really value the bus for anything other than the fact that it gets me somewhere I need to be. Nobody talks to each other, so why would I look forward to riding the bus? At least at school, it's more of a social environment and I'm getting different things out of it, even if I don't always want to be there. (Claire)

Urban environments, with their diverse populations, are sites of difference; public transit is no exception, despite some routes being dominated by certain demographics, such as students travelling to Brock University. With difference comes contestation over how spaces are organized, occupied, and appropriated. Tonkiss (2005: 9) describes such contestation as a "politics of difference in the city," and argues that *indifference* is a key component of these politics. In other words, one way to cope with difference is to be, or at least appear, indifferent to one's surroundings. Politics of difference, in the context of indifference, are complex. Indeed, as Tonkiss (2005: 9-10) writes, "privacy or anonymity is not simply an index of the alienation of city life, nor is it purely one of the benefits of cultural privilege that allows certain people to make their way in the city unhindered, unremarked, unbothered." My participants did not reflect on the latter, but I think Tonkiss raises a compelling point: while indifference achieves isolation or alienation for some, for others, it affords people opportunities to explore the bus environment in alternative ways.

Urban form is a mechanism of social distancing. To deal with mass movement in urban centres, spaces are designed to promote individual movement by creating opportunities for social distancing, even if physical distance between individuals has remained the same

as before (Sennett 1994). The notion that urban space has alienating effects is not new. Don Mitchell (2005) uses the sports utility vehicle (S.U.V.) as a metaphor to describe individualized, cocooned models of citizenship in Western societies that have been encouraged by American laws, securing a 'right to be left alone'. Kathryn Milun (2006) traces a connection between the development of the modern city and the increasingly diagnosable condition of agoraphobia, with specific reference to the notion of "empty urban space" (see also Nan Ellin 2006 for a discussion of growing senses of fear among urban publics). At a smaller scale, PLDs can be included in a treatment of alienation in public space. As I will demonstrate in the upcoming chapters, PLDs become tools that create disconnected and individualized, rather than connected and collective, experiences on the bus. When we combine PLDs with structural elements of the bus, such as forward-facing seats (see Schivelbusch 1977; Sennett 1994), the social fabric of the bus is significantly affected, leading to what Michael Bull (2007) identifies as "chilly" environments.

Bull discusses the dialectic of warmth and chill in the context of urban space, arguing that chilly characteristics of anonymity, unfamiliarity and isolation people feel as they move through the city are interpreted as a common urban problem (2007). He writes that individuals try to mediate chilly environments by "warming" them up with technologies that create a sense of belonging, intimacy, and familiarity. Personal belongings such as books, cellular phones, and PLDs warm up the space for the individual, but often exacerbate the problem of chilliness at the broader social level.

The notion that public transit is a space that lacks meaning or social significance was a common theme in the interview responses, as participants generally understood the bus as a transitory space (Hulme & Truch 2006) that connects two more important places. Although Eddie stated that there was no typical transit ride, suggesting that the transit space might have some meaningful activity depending on the day, his preoccupation with getting off the bus

also points to a lack of attachment to the commuter space. The eagerness of several of my participants to get off the bus, even if they are not pressed for time, reinforces Bull's assessment of the "chilliness" of urban space.

Bull notes that urban chill is associated with spaces that appear anonymous or semiologically empty, often described as 'non-places' (Augé 1995) or 'empty spaces' (Milun 2006). The term 'non-place' or 'empty space' seems overstated in its dismissal of the possibility that spaces such as shopping malls, public transit, and airports have meaningful context;⁸ instead, I prefer Hulme and Truch's (2006) notion 'interspace', which is a transitory space-time that people occupy as they travel between more established spaces of their lives. I argue that, while my participants seem to value public transit less than they do other social spaces of their everyday lives, their responses implicitly suggest that this mobile environment is not merely a transitory space between two more 'concrete' or important spaces or events. Indeed, as Hulme & Truch (2006: 48) state, "the interspace between two events could be more important than the actual events." As I argue in the following chapters, people use different tactics, such as PLDs, to turn the bus environment into something that has some value for them, but this does not mean that the bus begins as an empty, insignificant space. The fact that my participants are so preoccupied with what they consider to be the frustrating aspects of the bus environment suggests that the bus does have significance, even if only as an irritation.

My participants found the lack of social interaction to be a particular problem associated with their commute, and frequently brought it up even when unprompted. They described the space of public transit as socially fragmented, disconnected, and lacking significance or meaning, which contributes to its constitution as a "chilly" environment.

⁸ See Tonkiss (2005) for a criticism of 'empty' space.

Sarah, like many other participants, described her experiences as mundane or boring, particularly when travelling alone. She related this feeling to a lack of interesting social activity, which echoes the quotation from Claire at the beginning of this section, and also attributed her state of boredom to a repetitive travel process:

If I don't know anyone, it can be really mundane, because it's just the same ride every day unless something really interesting happens.

As I noted earlier in the chapter, two of my participants used the term “hostile” to describe their interpretation of the public transit environment. In both cases, they seemed to be relating hostility to a lack of social interaction. In fact, several of my participants felt that other passengers who were actually paying visual attention to them, rather than looking “through” or away from them, were only doing it to pass judgment on them. It is interesting to note, however, that if conversation were to occur in attempt to reduce some of the hostility, it too would be interpreted as abnormal or out-of-place. Angela said, “...I think people are actually expected *not* to talk to other riders unless they know them. People don't seem to want to talk to strangers on the bus.” Tom's observations about the social environment support Angela's comment, suggesting that a social “code” exists on the bus. He stated:

...usually it is pretty quiet, and it seems like conversation is discouraged. Even if you see someone on the bus, maybe it's just some sort of code, but if they are more than one seat away, you feel like you're not allowed to talk to them, because it's rude or something.

A similar sense of social isolation was expressed by Ian, who acknowledged that most passengers keep to themselves and merely tolerate being near other riders until they can get off the bus. He said:

Every once and awhile I'll start up a conversation with somebody if they look like they're up for it. But for the most part, it's eyes-forward, people are just trying to get through the next ten minutes until they can carry on with their lives again.

Ian's statement, “until they can carry on with their lives again,” provides a poignant sense of

participants' coding of the bus ride as meaningless, and as an event that is removed from other aspects of their everyday lives in the city.

Eddie, who used St. Catharines Transit in high school and is nearly ten years older than most of his peers at Brock, noted that conversation among riders has decreased considerably since his bus trips in high school. He argued that technology is the main source of the problem, and suggests that mobile technologies have created normative expectations for (non-)communication in public space:

...strangers don't interact with strangers. There's a gulf between strangers. I find that personal listening devices and those kinds of technologies work to widen that gulf [...] I mean, I'm sitting here telling you about how I'm too afraid to ask this girl to ring the bell for me at my stop, let alone ask her what she's up to, you know what I mean? It's diminished *that much*. It's gotta be the technology. Technology is the catalyst... it *has* to be. It's the only different variable. We still go out in public. We still get on the bus. We still go to the same supermarket, and wait in line. There's still the potential for that interaction, but it doesn't happen. [...] When I was in high school, the bus was a buzz with conversation, you'd have to raise your voice over all the people talking just to be heard, and now it's like, you don't want to *cough*. It's like a dynamic that's in flux, and it's up to you to maintain it. Because, I mean, it's ever-changing, and it's *still* changing. (Eddie)

Indeed, several of my participants identified PLDs as key contributors to changing expectations for communications. Logan described the impact of PLDs on the "silencing" of conversation on public transit, even among individuals who are socially or demographically alike:

People see someone they know, and they might give a head nod, but they won't stop and talk to each other because they both have headphones in. I think that's just doing the opposite of what being in public really entails. We sit beside people who go to the same school, are around the same age, could have the same interests... they're in close proximity in more ways than one, but in other ways, they're so distant from you.

It is noteworthy that, in almost all of the interviews, a sense of concern or regret was expressed at the lack of social interaction on the bus. Most of my participants talked about the decrease in conversation as if it were a shame, but when asked about their own interaction with others, said that they would rarely start a conversation with a stranger aboard the bus.

Isabella followed this informal ‘rule’ of interaction as well, but unlike other participants, felt that a sense of connection did not necessarily require verbal communication. She reflected:

I think, for me, it’s about feeling that connection with the public. You don’t even have to talk to anyone, but the fact that you’re *part* of that group just makes you feel different than you would if you felt more alone. I think that’s something healthy, because sometimes I find that I’m in my office doing all this work, and I don’t really get that social interaction so much, and then when I do go out in the public, even though I’m not talking, having that environment to just observe at least makes me feel like I am part of something.

Public transit, in Isabella’s opinion, is a site of *potential* for interaction, either verbal or non-verbal, and she feels something calming about being in the presence of fellow Brock students even if she does not talk to them. Public transit allows Isabella to satisfy what Katz and Aakhus (2002) argue is a desire to be in the company of other urban dwellers without consciously engaging in some form of interaction (see also Tuan 2001). In other words, being ‘alone, together’ is satisfying for some people, and the socio-spatial characteristics of public transit mentioned in this chapter provide the opportunity to meet with others but maintain a certain social distance from one another (Bull 2007; Katz and Aakhus 2002).

I will now explore the notion of public transit as a constraining space, using interview testimonies and historical context. In doing so, I highlight a connection between the bus as a “chilly” space, and the bus as an environment shaped by processes and structures that are beyond my participants’ control, but which they also reproduce in different ways.

“Out of My Control”: Public Transit as a Constraining Space

I think on the bus, there are a lot of unwritten rules that we tend to follow with experience. You know, if it’s filling up, don’t be that person that keeps their bag on the seat to avoid someone else sitting there, or try to move everyone to the back so that there’s more room for people to get on. Don’t try to talk to a stranger if they don’t look like they want to have a conversation. Don’t stare at another rider for a long period of time. You realize these things quickly after riding a few times... (Angela)

So many aspects of my experience are out of my control. Bus routes, bus schedules, the people I’m forced to sit with... I have very little control over those things, and I think

that's pretty telling of my experience of public transit. (Claire)

Moving urban masses along a complex transportation network requires planning, and we can see how the layout of the bus has been designed to shape social behaviour and interaction in particular ways. As such, it reflects the values of management, control and efficiency.

Earlier in the chapter, I discussed how the bus constricts movement due to its structural characteristics as a small space that transports a dense public. In addition to this, my participants feel that they are constrained by other controlling factors associated with the bus environment. Riders' experiences are shaped by organizing features of public transportation, such as lines at bus stops, "unwritten" rules of how to enter and exit a bus, scheduling and route decisions, and expectations for how to properly ride the bus. Angela told me, "I hate that I can't control any of those things, that someone else controls my bus ride." In this section, I explore how my participants feel they are constrained by certain aspects of commuting that accompany a bureaucratic public service. Participants' descriptions of the controlling aspects of the bus allow me to discuss in Chapter Four how people internalize and participate in their own constraint as they simultaneously try to escape or change it.

Several of my participants expressed concern about the lack of control they felt over an inflexible transit system. This was particularly evident in relation to the bus schedule and the broader daily schedules of my participants' lives. Buses can only follow particular routes and schedules, and while these have been designed to capture as much ridership as possible with a limited source of funding, they cannot pick riders up wherever they want. Not surprisingly, then, each of my participants identified scheduling as a problem, and some expressed frustration over the layout of the routes. Sarah, for example, wished that she wasn't "confined" to the same route every day, which she found mundane. When asked if a lack of control over route direction influenced her experience in a negative way, she acknowledged

that it did at times.

Scheduling seemed to be a greater problem for my participants than the inability to select travel routes, and was discussed in terms of the transit schedule as well as other daily routines that temporally control people's everyday experiences. The transit schedule is understood as constraining because it forces riders to travel at particular times, and to arrange their daily tasks around it. Several of my participants felt that having to follow a pre-determined schedule constrained them, making them feel as if they had little power during their transit experience. Ian articulates his frustration with being tied to a schedule in this passage:

I've had a car since I've been 17, so the fact that I am restricted to a schedule, I really don't like that. If I'm done doing work, and it's 10-after, then I'd rather go home right at that time, than have to kill 20 minutes of time before I can leave. There's the convenience factor of being able to leave whenever I want with a car, and carry on with my life instead of being held hostage to the bus schedule.

It is noteworthy that my participants seem to be more concerned with time than space, and get irritated with having to wait for buses. Ironically, as Ruby stated, having to wait for a bus often takes up less time than driving, because it takes students more time to find a parking spot in the less expensive parking lot than getting dropped off at the main doors of the university by the bus. However, what is most important for students like Ian, is that he lacks control over his transit experience. Although he may use as much time driving and walking from the parking lot, he values driving for the ability to control when he leaves, as well as for other forms of micro-ambient control that a personal automobile affords. Agency and autonomy are limited by having to comply with the public transit schedule.

In addition to being unable to control the temporal experience of the bus ride due to scheduling, Ian's comments about having to "kill" time highlight the notion that the bus journey, including the time spent waiting for the bus, is constituted as "dead" time. At the beginning of the chapter I discussed movement particularly in spatial terms, but in the

example of “dead” time, we see that movement also has a temporality that is as important as its spatial characteristics. Participants are forced to wait on the bus until they reach their destinations, and this act of waiting becomes a source of frustration, particularly among a generation who are accustomed to being occupied, busy, or fast-moving (Bull 2007; Hulme & Truch 2006; Katz & Aakhus 2002). Indeed, as Tom notes, students often seem to be in a rush to get on and off the vehicle so that they can carry on with what they consider to be more important activities.

Although my participants may not enjoy going to classes, they value their time at the school because they think it is productive; sitting through a lecture will get them closer to receiving a university degree, reading library resources will help them better understand a particular topic, and spending time at school will provide opportunities for social interaction. Time spent on the bus, however, is only tolerated because the bus will get them to a more highly-valued place. Angela told me that time *felt* different on the bus than in other everyday spaces. She said:

I know the bus is necessary to get me to school, so I just have to deal with it as part of my day... but sometimes I feel like I'm suspended in time, like it stands still or slows down or something. A five minute bus ride can sometimes feel *painstaking* because I don't like being there. I'm not doing anything worthwhile with my time when I'm on the bus and it seems like it takes *forever* to get to school sometimes.

When we compare Angela's remarks with a quotation from Sarah in the earlier section on inescapability (“It's just the fact that I can't get away from them on a bus, there's no escape, it drives me crazy”), it is evident that the perception of time is inseparable from the spatial and social characteristics of the bus. Time that seems to “stand still” on the bus could be related to a variety of factors, including vehicle speed, but is probably most closely connected to discomfort with the social environment and the spatial confinement of the vehicle.

Jake recognized that it was not feasible to accommodate each person's individual schedules, but noted that the extra time required to wait for a bus, make a transfer, and travel

home from the bus stop on foot made for a less positive experience of transit. He argued that this process could be defined as wasted time:

The convenience of a car is obviously something I've thought about, especially now that I've moved to an area where it takes longer on the bus, or if I have to walk longer with groceries and stuff after I get off the bus. [...] I've never owned a car, so I know that it's okay not to have a car. I just have to plan my life a bit differently. It is a lot more wasted time though, when you consider the time it takes to walk to a stop, wait for the bus, go to where you're going and then do that all over again when you go back, especially if it's a route that only comes every hour or so.

Eddie explained that he is forced to work around the bus schedule, which is difficult for him:

...with public transit, you have to bend your schedule around it. I can't really do that... time management isn't my forté... I work at my own pace, and I have a lot of stuff on the go, personally. Fitting and accommodating the bus schedule into that – I don't know how to do that.

Jake and Eddie therefore value a certain degree of independence and control over their daily activities, and the inability to have this affects their perceptions of public transit. The notion of 'wasted time' on a bus suggests that the experience is not meaningful or valued in some way. However, I think my participants' narratives suggest that their experiences *are* meaningful, but in a negative way. As I explain in Chapter Four, PLDs are used to neutralize these negative aspects of the commute.

Problems with following the schedule are embedded in broader processes such as bureaucratic efficiency, which manages time according to a timetable and disciplines the subject by requiring them to move and act within the boundaries of certain time structures. Bull (2000) presents similar findings to those described above, in which his interview participants described their irritation with feeling 'enslaved' to their demanding work schedules. Bull concludes that urban dwellers are heavily constrained by various social structures that leave them feeling powerless over many aspects of their daily lives.

Tom and Logan observed that public transit reflects North America's capitalist consumer society. They each noted that passengers seem preoccupied with getting on and off

the bus as quickly as possible, and that their apparent need to busy themselves with mobile technologies or other activities perpetuates the busy rhythm that is increasingly consuming urban life (see also Bull 2007 for a discussion of the connections between musical and urban rhythms). Tom remarked:

I've started thinking about [rhythm] more now that I've taken a couple classes on the city. We've talked a lot about the way our society is set up with eight hour days, and how capitalism affects that flow of people. You know, with daylight savings, and that sort of thing, how time and scheduling is set up to make us produce and consume more. The way people are when they get off the bus, you see the same thing, there's more hustle and bustle, which is a rhythmic thing. People are rushing off in different directions... they're late for class, or they're trying to get somewhere quickly.

In a city that operates under values of bureaucratic efficiency, people are trained – and discipline themselves – to fill time and space with activity and to be punctual beings. This contributes to a certain urban “tempo” or “pulse” (Sheller & Urry 2006) which is described by several of my participants as “fast-paced.” The confined space of public transit restricts activity in a way, but riders find ways to adapt to their environment.

City buses are designed primarily for efficiency in accommodating a dense ridership, and therefore affect how passengers occupy the bus. Along with the effects of this spatial design come unwritten codes of behaviour. Some of my participants indicated that they expect people to place their bags in their laps or on the floor to allow another passenger to sit beside them. Many observed that talking was only expected or interpreted as “normal” if it was between two acquaintances, and rarely between two strangers. Even on a bus at full capacity with riders sitting and standing shoulder-to-shoulder, privacy is valued and expected to a certain extent, and is reproduced through the actions of the riders and the layout of the bus.

The privilege of privacy and individualism over sociality on public transit is aided to an extent by the spatial design of the bus, which is a micro-scale example of how the spatial designs of urban societies have turned people into private subjects. At a broader scale,

Sennett (1994) relates increasing disconnectedness in urban spaces to spatial design. He writes that spaces, over the past two centuries, have increasingly been designed to encourage individual movement, which thins out space and encourages people to keep to themselves. The bus's layout is somewhat different from the urban spaces Sennett studies, in that the confined structure of the bus *creates* unwanted social interaction, rather than allowing people to move quickly past each other. Consequently, people may be more desperate to find strategies to avoid other passengers.

Using the example of the railway journey in the nineteenth century, Wolfgang Schivelbusch states that people began to seek ways to circumvent interaction:

As we have seen, the perusal of reading matter is an attempt to replace the conversation that is no longer possible. Fixing one's eyes on a book or a newspaper, one is able to avoid the stare of the person sitting across the aisle. The embarrassing nature of this silent situation remains largely unconscious: any insight into it will therefore appear only in hidden terms, hinted at 'between the lines.'

(Schivelbusch 1977: 75)

Indeed, the "embarrassed silence" became such a concern that railcars, and later buses, were restructured to accommodate the desire for optical and aural privacy, emerging in the bourgeois class and eventually being adapted by the lower classes who tended to aspire to upper class status (Schivelbusch 1977). It is noteworthy that during this time period, privacy and silence became closely linked, and in some cases, considered as interchangeable values.⁹ Conversation and close physical contact in railcars went from being understood and valued as the norm to being labelled 'out-of-place', disorderly, and chaotic (Schivelbusch 1977).¹⁰

⁹ Indeed, even musical experiences, which have collective characteristics, moved into concert halls after the 19th century; these were architecturally designed to encourage silent contemplation of music (Coleman 2003; Leyshon 1998; see also Connell & Gibson 2002, and Frith 1996 for discussions about how the structure of performance spaces shape how music is experienced).

¹⁰ In Chapter 4, I further examine the relationship between different understandings of silence and privacy through the example of the PLD-mediated public transit vehicle. I will argue that the PLD acts as a tool, similar to the book and newspaper of which Schivelbusch writes, that achieves a certain element of privacy and "silences" different aspects of the transit experience.

Over a century later, we can see evidence of the shift in social interaction and seating arrangements in the example of St. Catharines Transit. Many of my participants acknowledged their preference to sit in the seats that face towards the front window rather than those that forced them to look at other passengers, and explained that physical, verbal or optical contact made for an awkward or embarrassing experience. Eddie indicated that the most “awkward” spot to sit was at the back of the bus, because, as he noted, “you’re facing each other,” which provides more opportunity for unwanted interaction. Jake provided an example of how verbal communication seemed out-of-place (Cresswell 1996) on the bus, and shaped how he perceived other riders:

When people speak to someone they don’t know, it’s just weird. Not that it should be, but that’s how it is now, it seems. I’ll even tell my friends, “Yeah, on the bus, this guy just started talking to me,” as if it’s a big deal, but really maybe they were just being friendly. And regardless of whether or not they’re trying to be friendly, that’s not the first thing that comes to mind. You usually think it’s weird at first.

He also referred to visual forms of social interaction:

It’s always weird when you’re not sitting right at the window but look out anyway, and then the person beside you thinks you’re staring at them... and then they turn a bit to see what you’re doing and you feel like you have to make it more obvious that you’re looking at something outside.

These feelings of awkwardness and embarrassment are part of a self-reflective process that led passengers to monitor their own actions. Eddie noted that he follows a “do unto others as they would unto you” rule for behaviour on the bus, and hoped that his rule would be adopted by every passenger. Riders therefore have the capacity to influence the behaviour of others without requiring overt enforcement of “unspoken rules” by authoritative powers.

Interpreting conversation and visual contact as *rude* or *invasive* perpetuates values of privacy and individualism even on a packed bus. When asked how he interprets conversation on the bus, Eddie commented:

It’s almost seen as rude now. You know, “shut up, I’m trying to sit here in silence, why are you talking?” Yeah, that’s the vibe for sure.

Tom felt that his own behaviour was influenced by unwritten codes of verbal contact, because starting a conversation with another rider might be interpreted as an invasion of that rider's personal space. He explained:

...usually [the bus] is pretty quiet, and it seems like conversation is discouraged. Even if you see someone on the bus, maybe it's just some sort of code, but if they are more than one seat away, you feel like you're not allowed to talk to them, because it's rude or something. So you might say "hey, how's it going?" and that's it, because you get the feeling that you're impeding on everyone else's private space.

Angela echoes Tom's observations about expectations of social behaviour on the bus:

...I think people are actually expected to *not* talk to other riders unless they know them. People don't seem to want to talk to strangers on a bus. Maybe it has to do with the type of person they assume is taking the bus, you know? Or they just assume that everyone else doesn't want to be spoken to, and that it's invasive in some way. It's funny to see someone's reaction when a person that they don't know starts talking to them on a bus. It's so often a quick awkward kind of look and a short response, and then they might pretend to be focusing on something else to avoid more talking.

I mentioned earlier that the constricting nature of the bus creates *too many* opportunities for social interaction, but the forward-facing structure of the seats facilitates a person's attempt to eliminate conversation, because it makes it difficult for riders to face each other while being positioned beside one another (see Schivelbusch 1977). However, reflecting on my participants' narratives, this seating arrangement does not seem sufficient for people who wish to avoid interaction on the bus. To overcome social problems associated with the bus environment, PLDs act as technologies of mediated isolation (Bull 2007), which, when paired with the above discussion about the vehicle's structure, create a very individualized – yet contested - experience.

Conclusion

A key, and not surprising, finding of this chapter is that the space-time of public transit is experienced as a varied environment. My participants' experiences are affected by multi-sensory properties of the bus environment, which include the acoustic, as well as broader social relations that guide expectations for behaviour aboard the vehicle. Most of them gave the impression that they would prefer to drive a car, but rode the bus to save money.

I highlighted four main ways that the bus is experienced, based on my participants' narratives: the bus as kinaesthetic, as constricting or inescapable, as a "chilly" interspace, and as a controlling or constraining space. Each of these characteristics relate to the theme of *embarrassment* on the bus; my participants seemed preoccupied with the risk of embarrassing or "awkward" situations. They respond to their fear by attempting not to draw attention to themselves.

The bus environment is kinaesthetic because it is characterized by motion, and because it is experienced as multi-sensory. The vehicle itself is transitory, but there are other aspects of motion in play as different sensory stimuli combine within the space, passengers are frequently in motion while on the bus, and the moving character of the bus creates a challenge for maintaining balance. All of these factors contribute to a dynamic experience of constant negotiation.

Secondly, I explored how my participants consider the vehicle to be physically-constricting, because it is a relatively small space meant for transporting large groups of passengers. At peak times especially, the bus is prone to crowding, and passengers must sit or stand in tight quarters with other riders. This close bodily contact is experienced as embarrassing, which shapes how participants constitute the bus's social environment. The inability to escape the moving vehicle (without defeating the purpose of their trip) was a source of discomfort, and led them to search for ways to mentally-escape the bus

environment; as I show in Chapter Four, PLDs are important technologies of escape.

In the third section of this chapter, I identified the bus environment as an interspace, because it is transitory, although my participants seem to understand the bus to be a ‘non-place’ (Augé 1995) that is devoid of significance. They identify the bus as a vehicle that is intended to get them “from Point A to Point B,” as Eddie and Angela indicated, rather than as a meaningful social space. People feel disconnected from the space, and experience the bus as a “chilly” environment which has properties of anonymity and isolation (Bull 2007). In the following chapter, I show how PLDs are used to cope with this “chilliness” by carving out personalized spaces of familiarity and connectivity, and essentially “warming” up spaces individually. Ironically, strategies that establish connectivity further reproduce this chilliness at a social level because they encourage isolation.

Finally, my interview material points to understandings of the transit environment as having disciplinary properties. Participants felt that their movements and behaviours were controlled by structural and functional features of the environment, such as scheduling and seating arrangements; this led to what they said was a constrained experience. They also noted that riders reproduced codes of “normal” or expected social behaviour, and that they negotiated the social environment in ways that would not cause embarrassment or lead them to be perceived as out-of-place.

As Eddie told me, certain social values in public spaces might be sustained for years, but there is always the potential to challenge or reshape them. In the following chapter, I draw on empirical findings about how my participants interpret the bus environment to explore how PLDs are used to *mediate* this transit experience. I argue that PLDs are tools for cognitive, social, and spatial management. As I will demonstrate, these devices have become so vital to people’s daily travels through the city that they are now *inseparable* from the bus environment.

Track Four

“It’s all about control”: How PLDs mediate the bus environment

If you really want to get cynical, we’re all prisoners to different institutions and authorities in our lives... so why do I like using my iPod? It’s all about control. I’m giving myself some of my freedom back. (Claire)

I like the freedom that comes with getting to listen to your own music. (Tom)

You control what you listen to, and when you listen to it. And when you do that, you kind of control where you are. (Jake)

This chapter, like Claire’s iPod use, “is all about control.” I explain how PLDs are used to mediate the bus experience, and the effect this has at different scales. I argue that PLDs are powerful pieces of technology that shape how the bus journey is (re-)constituted. In Chapter Three, I identified how the bus has constraining properties, focusing on factors such as scheduling, routes, and seating arrangements that implicate riders’ experiences. Throughout this chapter, I explore how some passengers use PLDs to cope with these effects of the bus system, and as a result, how riders reproduce their own constraint in different ways.

To understand how PLDs are used to mediate the bus experience, I have organised my discussion to show how control operates at different scales. I begin by providing a brief overview of PLD features that promote individualization and personalization of an acoustic experience. I show that PLD users associate the ability to select their own music, at any volume and at any given time on the bus, with the notion of freedom and control. In doing so, they are able to shape, to an extent, how they experience their commutes.

Building from this initial micro-scale discussion of personal control over the device itself, I move on in the second section to identify how people use the music on their PLDs to shape their mood. The listening process can be intense and highly emotional or largely unconscious. Most of my participants seem to enjoy listening to their own collection of music, and this is related to the comfort and familiarity associated with a personal selection

of songs, as well as to the opportunity PLDs allow to sustain or change a particular mood with music. In this section, I explain that using music to mediate the bus journey contributes to the dynamism and complexity of an experience that is already emotionally and cognitively complicated in ways described in the previous chapter.

In the chapter's third main section, I draw on participants' narratives to demonstrate the various ways they use PLDs to escape aspects of the bus environment. It is evident that the bus is not the only vehicle they are riding; rather, music becomes a metaphoric vehicle that transports people to different places, times, and states of mind, further contributing to the dynamic experience of the bus journey.

The chapter ends with an examination of how people interpret the visual signs of headphones, and explores how they use the device as a tool to influence other riders' perceptions of them, and to avoid verbal interaction with fellow passengers. I will argue that behaviour that is intended to cope with the embarrassment described in Chapter Three by attempting to mediate the bus's broader social environment also inadvertently reproduces social control on the bus.

The main focus of my research is how PLDs are incorporated into everyday bus routines, so I will begin with a brief exploration of the technologies themselves to better understand what Claire, Tom, and Jake mean in the epigraph when they discuss their PLD use in terms of control and freedom. By the end of this chapter, it will be evident that PLDs have become an integral aspect of the bus experience, and that music and the bus environment are intrinsically-linked, setting the tone for Chapter Five.

Personal “Freedom”: Micro-scale features of control

To understand why participants use PLDs to control particular aspects of the bus environment, I turn to their descriptions of their PLDs. It is apparent that they value the piece of technology primarily because of the personal choice it affords them. People like Claire, who feel so constrained in other aspects of their lives, cherish the ability to personally-mediate their experience with music, even if it is a minimal or misguided sense of control.

PLDs privilege individual listening experiences. Most devices are equipped with only one headphone jack, which is usually used by only one person, encouraging a level of individual control that is not possible in communal acts of listening. Eddie and Tom both explained that radios, which are designed for large audiences, are not always satisfying because listeners have little control over which songs are played. As Tom expressed in the epigraph, the ability to select exactly what he wants to hear is liberating. Like many others, creating a personalized soundscape is important because it makes him feel as if he is in control of some aspect of his commute.

PLD technologies have advanced over the past few decades, and many of them now allow users to create playlists and cross-referenced folders to simplify song searches. The “shuffle” option on MP3 players such as the iPod provides the opportunity to hear a random mixture of an individual’s selected music. Only the PLD user has control over the use of these features;¹¹ this creates a personalized acoustic experience and in some cases allows a person to explore different facets of an identity that may be kept hidden from the public. Jake thinks people would likely be surprised to find out what he listens to on his PLD, because his

¹¹ Although I write that the PLD user has sole control over the use of different PLD features, it is important to recognize that what seems like total choice is not actually the case. Programmers of the devices make decisions about the extent to which certain features can be used, limiting volume options and shaping the quality of the sound, for instance.

physical appearance does not often match his acoustic tastes. The privacy of the device allows him to listen to a variety of artists, all of whom contribute to what he calls his “musical identity”, without other people knowing. Jake’s behaviour resonates with Gill Valentine’s (1995) research on Walkmans among queer populations. She argues that her informants used their Walkmans and the music of *kd lang* to enact a queer identity in a privately-constructed acoustic space while occupying heteronormative public spaces.

Valentine writes (1995: 481):

What the Walkman, and now the Discman, offer is the means to self-produce your own space. At the press of a button, you can summon up *lang* and all that she signifies, whilst the music, and hence the space, that you have created for yourself remain invisible to others.

Like Valentine’s participants, Jake enjoys the opportunity to explore different musical identities as he flips through his diverse collection of music, while his outer appearance remains unchanged.

In addition to controlling the type of music they play, PLD users can change songs any time with the click of a button. They can freely navigate through a “global” catalogue of music, rather than having to listen to a particular artist or genre. The volume options are particularly important, because PLD users can adapt to changes in the acoustic environment by turning their music up or down. As I will discuss later, this is often a crucial feature of control that allows people to “drown out” unwanted sounds on the bus. According to my participants, they can manipulate their moods by making micro-scale decisions on a PLD to alter their soundscape. They use the PLD to manage their own emotional states at an individual scale, but with implications for the social environment. In the following section, I explore how mood is shaped by the use of PLDs, and argue that a mediated emotional experience can greatly influence the rider’s perception of the bus journey.

Emotional Journeys: Relationships between PLD use, mood, and the bus experience

I use music in so many ways, and let it control my emotions or mood.... I guess I don't know if that's the right word- 'let it' - because sometimes my mood seems to voluntarily change with music and other times it's completely involuntary. (Angela)

The importance of PLDs is deeply linked to mood. Dynamic social experiences, like riding the bus, are inevitably affected by and constitutive of different emotional states. Additionally, individuals' moods, and the extent to which they are read by others, influence others' interpretations of the social environment. Some people project their moods to the public more readily than others, influencing others' interpretation of a given environment. In Chapter 3, for example, I described how my participants' understanding of the bus as a hostile environment related to their interpretation of the moods of other riders.

As discussed in Chapter 3, the bus is not an enjoyable environment for most people, but participants claim that music from a PLD has the capacity to lift their mood by distracting them from undesirable aspects of their daily commute. Claire remarked, "my music puts me in a better mood because, when I start paying attention to a song, it helps me forget about the fact that I'm somewhere I don't really want to be."

It is difficult to put into words why we listen to music, and the effect it has on us (but see Adorno 1990 [1941]; Connell & Gibson 2003; DeNora 2000, 2006; Frith 1996; Rose 1994). This was evident when asking participants to discuss music in the context of mood and emotion. Isabella explained why she had enjoyed listening to her PLD on the bus by saying, simply, "music just made me feel good." Like others, she found it difficult to articulate why music put her in a better mood. "I think music is a huge part of my life, because your emotions are so important in daily life," she told me. Although she did not elaborate on her statement, she drew a compelling connection between music and emotion. Art is intrinsically linked to emotion; music, as an art form, draws from different emotional

states as inspiration and is met with a variety of emotionally-driven responses (Juslin & Sloboda 2001; Sloboda & Juslin 2001; Sloboda & O'Neill 2001). Although Isabella's music often put her in a more positive mood, she stopped using her PLD on the bus because she was concerned about being socially-removed from other riders. Reflecting on our conversation, I suspect that she would prefer to have the best of both worlds, but she does not want to appear or feel anti-social. Most riders put their headphones on when they leave their house or get on the bus; Isabella now rides without them on the bus and only listens to her PLD when she enters her house.

Jake, on the other hand, never leaves his house without his PLD, and he almost always listens to his music using the "shuffle" feature. The self-proclaimed "music addict" acknowledged the power of specific types of music on his mood:

"...there are certain songs I have, where if they come on, it doesn't matter what mood I'm in, I'm automatically in the best mood ever. Like if 'Glycerine' comes on, *nothing* could be better. Nothing in the world. It's like everything that's bad doesn't exist anymore."

Personal music on a bus can turn riders' otherwise "foul" mood into a pleasant or (in Jake's case) *elated* mood, even if only temporarily. Shuffling music can therefore result in a shuffling of emotions, and if the listener comes across a song that puts them in an unwanted mood, they always have the option of hitting "Next."

Some listeners take a more active role in shaping mood with their music. Although Tom often listens to his music in random order, when he does seek out a song on his PLD, his selection is always based first on his mood at the time, allowing it to guide his listening practices and affect his commute experience. He told me, "I usually pay attention to my mood and find music that goes with it [...] I like to listen to music, but I'm always listening to it in different ways. I think my mood, and how I feel, really affects the way I listen." Later, Tom added that music also helps to set his mood, which suggests a recursive relationship.

The notion that music can be used to *reinforce* mood differs slightly from the idea that music *changes* mood, and PLD-owners seem to value the ability to do both in different situations.

My participants felt that certain types of music have lyrical, sonic, or rhythmic properties that match or enhance their mood. Sarah indicated, “I usually use it to *keep* the same mood. If I’m sad, I’ll keep it on all the sad songs, and if I’m happy, I’ll listen to the happy ones.” The ability to sustain a particular mood with carefully-selected music on the bus creates a more continuous emotional experience than those mood-changing capabilities of the “shuffle” option.¹² Jake explains how he uses his music to both alter and reinforce his mood:

If I get super stressed out or angry about things, I’ll put music on to calm me down or to get me all... I don’t want to say ‘riled up’, but just to match my mood... if I get really really mad, I’ll just put on somebody like Hatebreed or something, and it’ll just get me feeling really angry... but it feels more like a *release* at the same time... or sometimes I’ll put on something really relaxing just to calm me down a bit.

As Jake pointed out, music is an outlet for emotional release that might otherwise go unexpressed in a public setting. Isabella told me that listening to music allowed her to be more introspective, and created a psychological space to *think* about her different emotions. Having the option to listen to what she identified as a “sad” song helped Isabella think about and perhaps understand why she was sad about something. While she relished the opportunity to be deep in thought, she felt that this introspective experience removed her too much from her surrounding social environment on the bus, and has stopped using her PLD on the bus. Isabella’s narrative does, however, allow us to recognize the bus as a site that provides time and space for people to organize and interpret their thoughts and emotions,

¹² Song selection is done in different ways by my participants. While some participants occasionally select music in advance, most of my participants seem to choose their songs on the go, or use a “shuffle” option, not knowing which specific songs will play in a given listening experience. Each of these listening styles reflect a certain degree of forethought, or lack thereof, and they all at least require a person to choose which songs will be added or removed from the PLD. This means that PLDs are embedded in their lives in ways that extend beyond the bus environment.

which I think contradicts the notion that the bus is an insignificant interspace (Hulme & Truch 2006; see Chapter Three).

Finally, some participants told me that they value their PLD so much that their mood changes significantly when they are unable to use it on the bus. Although most of my participants prefer to have their music with them on the bus, many of them indicated that they would not be upset if they forgot it at home or if the device ran out of batteries. Others have integrated their PLDs so deeply into their commuting routine that not being able to listen to their music frustrates them. Jake prefers to listen to his music as much as possible, stating, “to be honest... I can’t get enough of music, basically... so when I have a chance to have it on, it’s on.... Like, I just – I can’t get enough of music. It’s pretty simple.” When his PLD batteries die, temporarily ending his musical experience, his bus ride is less pleasant:

...if I don’t have my MP3 player riding the bus on a particular day, like if the battery was dead or I was running late and couldn’t grab it, I find it less enjoyable... because I can’t sit there and listen to music.

Jake reluctantly takes his headphones out of his ears when he sees someone he knows on the bus and feels obligated to have a conversation with them, which he finds irritating because he would rather listen to his music. Similarly, Sarah stated that while she can get through a bus ride without music, she is disappointed when her batteries die unexpectedly. Her mood sours quickly; instead of focusing on how her music makes her feel, she instead becomes desperate to get off the bus as quickly as possible.

Sarah’s preoccupation with getting away from the bus, where music is accessible or where something more meaningful takes place, stems from a variety of concerns about the social and spatial aspects of the bus environment, many of which were described in Chapter Three. The notion of escape was a central theme in discussions of why my participants used PLDs. The following section explores the role of music in redirecting passengers’ attention to other thoughts that sometimes seem to have little in common with the bus environment. As a

result, the experience of the commute is always apt to change, deeply shaped by PLD users' listening styles and the characteristics of their music.

Escaping the Bus: Music as a Metaphorical Vehicle

It allows you to briefly escape your everyday commitments and concerns. (Tom)

I can use music to pretend that those people around me don't exist, or to forget the fact that I'm going to school or work... none of that exists in that particular moment. (Jake)

PLDs provide an opportunity to escape certain aspects of the transit experience that some people find intolerable, irritating or embarrassing. Depending on how the device is used, a person can be temporarily distracted or almost completely removed, at least in an emotional sense, from the vehicle. As I argue in this section, there are a number of factors that make PLDs a valuable tool of escape.

Tia De Nora (2000) writes that every song combines different musical and non-musical elements that reflect various cultural and political contexts (see also Bull 2007; Connell & Gibson 2003; Frith 1996). When an individual listens to a piece of music, he or she might recognize certain groupings of sounds and rhythms as characteristic of a particular place, cultural group, or time period. In this sense, music is a vehicle that can transport a person to an entirely different place in their mind without leaving the bus, while the bus itself transports the individual to their physical destination. PLDs allow those who find their commute unpleasant to mentally escape the environment by focusing on the associations they make with the music. As Simon Frith writes (1996), listening is a highly situated experience, and different people can conjure up different thoughts even with the same piece of music by attaching what he notes are socially-developed values, identities and meanings. Listening to music on the bus, Tom's thoughts are directed to a location specific to the artist's production space, or to the places depicted by the lyrics:

I think I visualize the band playing, or *where* they're playing. I imagine what he's singing about and then I kind of dream it out. That picture I get in my mind is usually totally different from what I see on the bus, and that's the way I kind of creatively think while I'm on the bus, when I'm listening to music.

As a drummer, Tom pays close attention to the different instruments in a piece of music, and sometimes imagines himself sitting in on the band's recording sessions. He takes pleasure in being mentally whisked away from the sights and sounds of the bus, to a setting that he finds more stimulating.

Although Ruby has stopped using her PLD for daily commutes to school, she happily reminisced about her experiences abroad while in the company of her music:

When I was abroad overseas, it was a source of comfort because it was a piece of home, you know? There are certain songs that might not have anything to do with my home, or even Canada, but there are memories you attach to music that can remind you of people or events that happened from home. It was music I had personally selected to travel with to a foreign country.

Ruby's travel experience took place at a different scale than students' daily commutes to and from Brock. However, her point that music is a mnemonic device (see also Bull 2007; DeNora 2000; Frith 1996) is relevant to everyday bus journeys, as PLD users are often transported to a familiar place or time in their lives by the memories that are conjured up by their music collections. Claire, who frequently gets "lost" in her music while on the bus, found it comforting to have music that reminded her of her home and family. The thoughts evoked by different songs allowed her to escape the bus environment for a short period of time, which for Claire made the ride an emotional experience full of fond memories:

It's interesting to think about what a song can do... my bus ride is only about ten minutes long, but those ten minutes can be so irritating depending on who I'm sitting beside, or which class I'm going to that day. I'm not homesick too often, but sometimes it is hard to be in a different city away from my family and friends, and I just can't talk to them at any hour of the day. Music really helps me feel connected to home when I can't physically go there... you know, I could be listening to music on shuffle, and all of a sudden I'll hear a song by someone like Bob Dylan, and that will immediately make me think of home because my dad is a huge Dylan fan. Those memories are so vivid, and all it takes is a couple bars of "Like a Rolling Stone" to remove me- at least, psychologically- from the bus. Depending on how I feel that day, it can be a really

emotional experience. One day, the music will put me in a good mood and gives me that taste of home that I can't get living in a different city, and the next day, that same music will make me miss my home so much that it makes me upset!

Claire's remarks highlight the importance of context in the interpretation and response to what is heard through a PLD. The escape away from the bus and into a cognitive environment that reminds her of her home is sometimes actively-sought, while other times it can happen unexpectedly. As she indicated, the memories elicited through a piece of music can be experienced with a wide range of emotions depending on the circumstances each time. This dynamism highlights the contingencies of the environment, emotional states, and music, and people constantly adjust for these fluctuating relationships.

Logan and Isabella both have strong cultural ties to places that are not generally associated with the cultural characteristics of St. Catharines, and more specifically, St. Catharines' city buses. Logan is particularly fond of Brazil after visiting the country a few times, and uses his PLD on the bus to revisit Brazilian culture through music with beats, such as samba, that he associates with the location. He commented:

I've been to Brazil a few times, and they listen to a lot of samba music there, and I really fell in love with the culture. So I brought back some of the music and other cultural things I had learned there, and I try to incorporate it into my life in Canada when I can [...] It seemed like the main theme to all the songs was more upbeat. I don't know if you listen to samba music, but there was just a lot of bongo drums playing, like dance music almost. And I've noticed in St. Catharines, with the snow and all the dirt from the road making everything look kind of bleak, when I put one of those songs on, it almost seems like I'm in a different environment. So in that case, the music doesn't really enhance what I'm looking at, but it does make me feel like I'm in a tropical place for a second, and then I look around and remember I'm in Canada [...] In terms of samba music, it takes me back to the time I spent in Brazil and where I first heard those particular songs. Every so often, I'll listen to that music, and it will take me back to a very specific time and place, and I really like having that opportunity. It's like a virtual vacation... for 5 minutes!

Logan recognizes the capacity of his music to transport him away from his "Canadian" environment on and around the bus for the duration of a piece of samba music. However, he also highlights the juxtaposition often experienced when pairing a particular genre or

grouping of sounds and rhythms with a landscape that seems to be completely unrelated. For some, this can be a pleasurable juxtaposition, as it can create the perception of being in two places at once; in Logan's case, the acoustic environment takes him to Brazil while the "bleak" visual setting of snow outside the bus situates him in Canada.

Isabella's experience is similar to Logan's, but hers is based on a particular cultural identity that is shaped by her family's ethnic backgrounds. Her interest in diverse types of music is fuelled by exposure to different cultural groups. Indeed, with a father from Cuba and a mother from Kyrgyzstan, she has had the opportunity to listen to music with a variety of sounds, rhythms, structures, and cultural contexts. When she used her MP3 player on the bus in the past, her collection was a diverse mixture of songs that she felt represented different places and people, all of which contributed to her self-proclaimed "multi-cultural identity." Isabella's sense of culture is embedded *in* music; it is also embedded in place and then articulated *through* music. Individuals develop strong bonds with certain places (see Tuan 1974, for a discussion of 'topophilia'), and as Isabella demonstrates, music is a means of connecting to those places, even if they are materially distant. Her PLD collection provided instant reconnection to places that helped shape her identity, and this has contributed to a particular musical identity as someone who is open to a variety of styles. In the passage below, she discusses some of her listening preferences, explaining the value of her PLD as having the ability to connect St. Catharines with the different places represented through the music:

It's a way of connecting those places. Any type of jazz or blues, I just find very interesting, especially when it has elements of different cultures mixed together. I think I'm just very open to diverse music. My mom, she's from Kyrgyzstan, and the type of music there is completely different from Cuban-style music. People find me listening to, like, Arabic music, and even though I don't understand a word they're saying, there are some songs that for some reason I just really like. So, I think having that cultural background makes me open to those different styles of music that other people might not get the chance to listen to, or they might not be interested in it.

While Logan seemed to be more aware of his surroundings on the bus and take note of the juxtaposition between soundscape and landscape when using his PLD, the memories and thoughts that Isabella attaches to her music were powerful enough to remove her from the bus environment.

Usually, when I'm listening to music, I don't think about what I'm looking at. I find that, when I'm listening to music, I go *back* to certain events or places, or things that happen that I can relate to. I really take myself away to somewhere else, really. I don't pay attention to what's going on around me.

Isabella and Logan both use acoustic tactics to conjure impressions of different places in their minds, and to remove themselves from some aspects of the bus environment. I now turn to a more specific discussion of soundscape on the bus to demonstrate how sound from PLDs is used to escape other specifically acoustic features of the commute.

Sound(e-)scape

...you could even say it homogenizes the sounds. You have the sounds coming from the iPod, through your two speakers in your ears, and you don't have that multitude of sounds coming from different angles at different volumes. The sounds aren't as chaotic with an iPod, which might give you a better sense of relaxation. It's just a few sounds that are happening at the same volume, which evens things out a bit. (Tom)

Until this point, I have focused on escaping primarily visual and tactile aspects of the bus environment. In Chapter Three, I argued that the public soundscape of the bus contributes to the overall experience of the commute. I will now return to the topic of the bus's acoustic environment as another problem that people try to escape with their PLDs.

Each of my participants identified the vehicle's soundscape as having a mix of sounds which includes, among others, the constant "roar" or "hum" of the engine, brakes squeaking, conversational sounds, and noise from devices such as mobile phones and PLDs. In the quotation above, Tom describes this acoustic experience as "chaotic." As we recall from the discussion in Chapter Three, Eddie and Jill identified the complex soundscape as

“overwhelming,” which I think highlights a sonic form of overcrowding that extends beyond the crowding of physical bodies.

There also seemed to be a tendency to describe certain aspects of the acoustic environment as “sounds” while others were termed “noise” (see also Attali 1985, Frith 1996, for a treatment of the social distinctions between sound and noise). The word “noise” was often used when discussing the dense mix of vehicular sounds, overlapping chatter, and feedback from mobile devices. Angela, for example, exemplifies this tendency as she explained how her iPod helps mediate the bus environment:

...if I’m by myself I could spend a lot of time being irritated with the amount of noise on a bus, and I think that that probably could factor into why I use my iPod. It’s nice to tune out the noise every once in awhile with something that’s a bit more familiar or wanted.

Angela’s iPod helps her filter or eliminate noise with sounds that she feels are more desirable; she also appreciates the ability to control volume levels and song choices. Ironically, Angela and many other listeners use PLDs to “silence” the public soundscape by turning their own music up to a higher level. Connor (1997) writes that humans voluntarily use technologies, such as vehicles or air conditioners, for example, but “the material volume of sound often occurs as an unwanted by-product of modern life” (Revill 2000: 602). In other words, when we use technologies to carry out our daily tasks, we reproduce what we interpret as an acoustic problem.

The word “noise” was never used when people discussed personal music on their PLDs, an important – though not surprising – finding considering that music is also a complex collection of sounds. The main difference may be that music is organized in particular ways based on pre-existing musical conventions that people have come to appreciate and expect, and therefore also has positive associations. When music is heard from another rider’s headphones, and is therefore stripped of certain sound qualities, it is perceived

as a social problem, becoming negatively-connoted as noise. Jill's comment below marks the shift from music being heard by the individual user's ear, to noise being created when its sounds are no longer contained:

I don't really like hearing someone else's music, because that means it's louder than necessary, and then it's kind of just noise... I'd rather *not* hear it.

Personal choice is also an important aspect of the problem, because another rider is deciding what others have to hear. It frustrates Jill to have little control over the bus's soundscape, and this is exacerbated when other passengers create noise by turning their "private" soundscape into a public one. In other words, other riders' music cannot be treated as background or 'keynote' sounds (Schafer 1994), because people are preoccupied with trying to figure out the source of the sound. The problems that arise when this occurs will be addressed in further detail in Chapter Five through a discussion of personal space.

Ruby, Ian and Claire seemed to be less concerned with the combinations of sounds on the bus and instead expressed frustration with the volume and content of surrounding conversations. Ian only uses his iPod at the gym, but finds personal conversations so irritating that he has considered using his PLD to drown out these conversations on the bus. Ruby, another non-PLD user who has recently considered using her PLD again on the bus, echoes Ian's frustrations as she lists what she hears most often on the bus:

Superficial conversations, right-of-passage-type conversations about getting really drunk or sleeping with someone, you know, those kinds of things. Really, it's meaningless, but to the people that are saying them, they're bragging. Other consistent conversation themes are about how tired they are, either from studying or writing papers or being up too late at the bar. There's also just this sense of entitlement in students' conversations, with people constantly empowering *themselves*, but not in a real way, or a good way. Everyone seems to have seriously high opinions of their purpose in the world, and they apparently feel the need to let the rest of the bus know that by talking much louder than they should...

Ironically, Ruby also indicated that she prefers to have a conversation with someone rather than listen to her PLD on the bus. In a sense, she contributes to the conversational soundscape that so many people, including herself, find frustrating.

Claire has taken her own measures to escape the conversational soundscape when it displeases her by putting headphones in her ears and turning up her music:

You know, it's not that I don't think conversations should happen. I think it's great if the bus is a social environment, and it's somewhat upsetting that conversations seem to happen less and less. It's just that... on a bus going to and from Brock, you hear certain *types* of conversations that are just so annoying and almost embarrassing in a way, because you know you're part of the Brock culture and don't want to be associated with certain labels that come with it. So, that's where my iPod comes in... as soon as I hear a couple people talking about how much they had to drink the night before, which is "the" conversation to have among Brock students it seems, I'll turn on my iPod and use music to remove myself from that environment. It might not completely drown it out, but it's enough to help me get away from the conversation, and the sound of my favourite music calms me back down.

In fact, using music to drown out external "chatter" was a heavily-cited reason for bringing a PLD on the daily commute to and from Brock. Conversation, as a common form of social interaction, is greatly diminished by the presence of PLDs on buses. Many people like Claire, ironically, turn up their volume to silence surrounding discussions. I argue that PLDs are used to *tame* what participants perceive to be a chaotic soundscape. Transit riders can also use the PLD to avoid having their own conversations with fellow passengers, achieving Bull's (2007) notion of 'mediated isolation'. As I argue in the following section on social interaction, the broader social environment of the bus is deeply affected by PLD use.

"Don't Talk to Me": PLDs and Social Interaction

It's that power that says, "I can ignore you if I want to"... [...] it's like a "security" feature of the iPod. (Tom)

...the statement isn't the *device*, it's that *your ears are unavailable*. (Eddie)

Crucial to the discussion of control on the bus is the management of social interaction. The design of PLDs, which can fit into a pocket and come equipped with small earbuds that are placed directly in the ears, promotes a privatized listening experience. Those who are uncomfortable with the social environment of the bus seize the opportunity to filter their social interaction with other riders. In the past, this has been done using tactics such as turning away from people when possible, closing one's eyes, or engaging oneself with reading materials (Schivelbusch 1977, Sennett 1994). All of these are connected by body or eye contact, and riders rely on the hope that limiting both of those forms of contact with other people will offer individual privacy, thus creating a more tolerable travel environment.

On heavily-populated Brock bus routes used by my participants, passengers may not have the opportunity to isolate themselves from others in terms of visual or bodily distancing. On a bus at full capacity, riders may have little control over what they look at or where they sit. As Jill noted:

...I don't want to be just staring at a person but then there's so many people sometimes, so you don't really have a choice *but* to look at people...

Jill is not alone in her concern over unwillingly "staring" at other passengers, or having someone else do the same to her. For many, it is a source of embarrassment, and when the number of passengers increases, it becomes more difficult to avoid looking at other people.

Jake frequently used the term "awkward" to describe his visual encounters with other people:

It's uncomfortable for me when someone's staring at me from that close... I don't know what to do because I'm awkward in those situations... and I don't want people thinking I'm staring at *them* because I know how it makes me feel and I don't want them to think I'm weird.

Jake expressed concern that making eye contact with someone might be misinterpreted as an invitation for a conversation. Like many others, he prefers to be "left alone" while riding and values his PLD for its ability to signal a desire for privacy.

Regardless of personal intent, headphones are observed and interpreted by other people in a number of ways. Some people understand headphones as markers of a personal love of music, and appreciate PLD use on the bus as a method of satisfying a desire to listen to music. Ruby acknowledged a strong musical identity as a reason for other riders' PLD use, stating:

For some people, it's that they're genuinely interested in music, it's such a huge part of their life that they want to listen to their music as much as possible.

However, she went on to argue that PLD use goes beyond a love of music:

For others, it's a just status symbol. But really, I think it's just becoming more and more of a social norm to have them and to listen to music at all times. I think a lot of people just assume that they need these devices because they look around and see that everybody has them. Now that they've become so popular, people start using them in ways that are no longer related to the music... you know, it's no longer about the *music*, it's about the statement you make with the device, with the headphones. People have realized that the headphones are so useful to avoid having unwanted conversations with other people, and I think that has more to do with the symbolism of the headphones than it does with the volume of their music.

Ruby raises an important point. Regardless of the initial reasons behind the production and consumption of PLDs, users appropriate them in myriad ways, and her point demonstrates that these devices send acoustic *and* visual signals that are interpreted differently depending on the context. The point that Ruby raises of the relative importance of the *device* compared to the *music* raises complex questions that require more exploration than is possible in this chapter, but which will be revisited in more detail in Chapter Five.

The notion that headphones can be used to control interaction with other riders was a common theme in the interviews. Although most of my participants expressed concern that conversation in public spaces seems to have decreased over the past few decades (see also Augé 2008; Katz & Aakhus 2002; Sennett 1994; Tonkiss 2003) they also discuss how their PLDs offered them welcome isolation from other passengers (Bull 2007). Similar to Jill's and Jake's expressions of discomfort with looking or "staring" at other people on the bus, verbal

interaction is met with unease by many passengers. This is particularly evident when the initiator of a conversation is not an acquaintance. Most of the PLD users I spoke to claimed that they would turn their PLD down or take their headphones off to converse with someone they knew on the bus. This was not the case, however, when they travelled without acquaintances, or did not meet someone they knew on the bus. Ian is a self-proclaimed “chatterbox” around friends on the bus, but he avoids conversations with strangers because he perceives “small talk” to be superficial. He feels that it is difficult to have an engaging conversation with another person because the length of the bus journey is so short, and he would rather keep to himself instead of carrying on what he considers to be a meaningless conversation. On the topic of communication with strangers, Ian stated:

...There’s no *depth* to it, it doesn’t mean anything. For me, I’d rather just be in my own little box and avoid those kinds of conversations.

Angela told me that she makes efforts to smile or acknowledge fellow riders but prefers to listen to her PLD instead of have a conversation. She loves music, but also wants to be left alone to have an uninterrupted ride:

Honestly, I think it’s become part of our behaviour to want to be left alone in public places like buses. At least by strangers. I don’t think I’m that much different from others. I like my own space, and it’s not like I absolutely hate disruption, but it’s nice to get from point A to point B without being bothered too much or having to move.

Participants prefer the comfort and familiarity of their music over what they perceive as uncomfortable social interaction, and recognize PLDs’ capacities to mediate this interaction.

Some participants were direct in explaining how they think their PLDs influence communication with other riders, and recognize it as a powerful technology that allows them to avoid conversations. Logan, who prefers to travel alone and values opportunities for introspection on the bus, described his PLD as a tool that enables him to control other people’s behaviour around him:

It's that power that says, "I can ignore you if I want to"... it's like an excuse not to talk to people. There have been times where I've had music playing, and I've seen someone I don't really want to talk to, and instead of confronting them, I'll walk by them because I know I have the power to ignore them when I have headphones in. So, when people have their headphones in with no music, it makes you wonder if the device is more about the ability to choose how you communicate with people than it is about the actual music.

Logan raises two crucial points when he identifies his PLD as a resource of power. First, he can use the headphones to send a message to another person without feeling that he has offended that individual. In doing so, he feels a sense of control over another rider and, more broadly, his surrounding social environment. Secondly, in the quotation's final sentence, he encourages us to consider the degree to which PLD use is actually about the music when the headphones send such powerful signals on their own. Logan, Angela, Claire, Sarah and Jake all indicated that they have occasionally had their headphones in their ears on the bus with no music playing because they recognized the capacity of the headphones to disengage with other riders.¹³ According to Eddie, who does not use a PLD on the bus, headphones send a strong message that goes beyond music *and* the device:

...the statement isn't the *device*, it's that *your ears are unavailable*. [...] And that's how I interpret it, that's how I *know* personal listening devices. "I'm putting this on, I'm not available." [...] If they are listening to it, you don't need to see the device, you just see the earbuds in, and that's it. You don't question it. I think that's why people put them in, to avoid interaction. It's such a convention for us, that if they're in, they're unavailable.

While the visibility of the devices might have been interpreted as a status symbol in the past (Levy 2006), PLDs now seem to be visibly interpreted as a signal to be left alone.

Eddie's notion of unavailability once again suggests a power relationship that enables a PLD user to control another rider's behaviour around them. He also explained the problems that a

¹³ Several of my participants used headphones to show an unwillingness to interact with other riders, but in other parts of their narratives, they suggest that headphones merely indicate that the listener's attention is occupied by their music. Some of my participants who indicated that they used headphones to show a desire to be left alone, justified their behaviour as the latter, perhaps to avoid taking responsibility for causing offence to other riders.

disconnected public has on the ability to maintain order and efficiency the bus. He told me that PLDs are so successful at disengaging people from the social environment that they are less attentive to routine transit activities that require some communication between passengers, such as asking someone to pull an unreachable cord. He stated, “I don’t like asking people to ring the bell... especially if they’re on an iPod. I missed a stop one time because I didn’t want to ask this girl with an iPod to ring the bell,” explaining that he thought her music was too loud and raising his voice to ask for her help would cause embarrassment (refer to Chapter Three). Although his fellow passengers may not wish to hinder Eddie’s ability to exit the bus, this experience has led him to seek seats on the bus that allow him to reach the signaling cord without having to “impose” on others.

When listeners use their PLDs to influence how other riders act around them, they reproduce the disciplinary environment that they claim to be escaping. As Eddie pointed out, Brock students have become so accustomed to seeing the headphones that, regardless of the rider’s reasons for using the PLD, people immediately understand that they should not approach the listener for interactive purposes. Riders therefore discipline each other, often according to how they would like to be treated themselves. While some of my participants identified the act of wearing headphones as rude or “standoff-ish”, many also felt that every individual should have the “right” to personal space and privacy, even on a public bus. Therefore, despite how a person feels about a fellow passenger isolating themselves with a PLD, that person is likely to respect what they assume is a desire for privacy.

PLD use is much higher on Brock buses than others that travel through areas of St. Catharines that are not heavily populated by students.¹⁴ When a large proportion of people use their PLDs, the social environment of the bus is apt to respond. PLDs become “aural pacifiers” that hush a crowd and create an acoustic order, because the listening process is primarily a private act that is only experienced through individualized PLD headphones. The act of “silencing” or “tuning out” (Beer 2007) occurs at more than one scale; people can use personal music to tune out other elements of the soundscape and landscape, and when a large group of riders are plugged into PLDs, they create a silenced social environment. This creates a ripple effect, as other riders who might otherwise engage in conversation now gauge the bus as a site where conversation becomes out-of-place, and will self-regulate their behaviour by refraining from talking with others. Claire explained:

Now that so many people are using MP3 players on the bus, I feel like there’s been a total switch in how people interact. You know, thirty years ago, everyone would be talking, even if it was just small-talk about the weather... it was the “normal” thing to do, it was *expected*, or so I hear. Now, aside from the sounds of the bus and that sort of thing, it’s eerily quiet. Everybody has headphones on, and that means that nobody talks. So if someone tries to have a conversation, they feel like they’re doing something wrong because it’s going against what everybody else is doing... it’s disrupting that silence.¹⁵

Claire interprets silence in relation to the broader-scale social environment; we must remember that PLD users are engulfed in their own acoustic experience that is anything but

¹⁴ Based on personal experience of riding buses to and from Brock University over a six-year period, I estimate that roughly 90 percent of the ridership along these routes during the academic year are students. The institution’s physical isolation from other land uses in St. Catharines reduces the number of passengers who do not travel to the university as a destination. Accordingly, the other 10 percent is heavily comprised of people who work at Brock.

¹⁵ Claire’s statement reflects a mythologized or romanticized discourse of the past and of “how it used to be.” Several of my participants shaped their discussions within an historical understanding of sociality, despite not always *living* through the periods they speak about, and therefore draw from other narratives as information. Eddie, who is roughly five to ten years older than the other participants, uses first-hand experience to explain how interaction has changed throughout his life, but also speaks of the past with a nostalgic tone.

silent, yet this is at an individual scale. Like most other PLD users, Claire's concern about reduced social interaction was not enough to convince her to stop listening to her music on the bus.

Although PLD use is often a solution to what participants discuss as "annoying" conversations (see Chapter Three), it is possible that conversations on the bus might also inadvertently be a product of PLD use. In other words, non-PLD users might talk to each other in a less guarded or more open way, because they assume that all of the PLD users cannot hear them. Jake said, "...I've definitely heard people say "oh, he can't hear us" and keep talking at the same level they were before about things that you know they'd never talk about if someone could hear them." Ironically, if this is the case, people who use PLDs to cope with hearing other rider's "annoying" personal conversations might actually contribute to the context in which these irritating conversations among acquaintances are possible.

Isabella was the only participant who indicated that her reason for leaving her PLD at home was related to the vehicle's social environment. She identified PLDs as contributing factors in decreased communication on the bus, and explained how this sentiment affects her own PLD use. She stated:

We're distancing ourselves from that face-to-face interaction. I think the iPod is also affecting that, because it gives us the freedom to take ourselves out. It's almost like you're turning yourself off, you know, from being able to communicate. [...] The reason I stopped using it is because in first year I used to take it with me all the time on the bus, and I realized how it was making me very anti-social. Being in first year, I really just wanted to meet new people and feel comfortable around Brock students, and the MP3 player didn't really help me connect with anybody on the bus. I figured that if I put it away, I'd have a better chance to communicate with others.

Interestingly, for someone who claimed to be worried about becoming "anti-social," Isabella also said that she rarely spoke to strangers on the bus. This might be influenced by the silenced environment that makes her verbal interaction seem amplified and out-of-place. However, she strongly felt that communication is practiced in non-verbal ways, and traveling

without her MP3 player made her feel more connected to the social environment because she felt more aware of other people on the bus. The question of whether PLD use actually discourages communication, or if it simply creates different forms of interaction, is important for future research, and will be discussed in my concluding chapter.

Ruby, who now only uses her PLD when running, interprets headphones in a similar way as Eddie, as signalling unavailability for interaction, and she went further to explain that headphones are a sign of rudeness in certain instances. She explained:

It's just standoff-ish. You know how you smile at someone and maybe make eye contact, and just be nice or whatever? You don't necessarily have to when you have headphones in your ears... it's like an excuse not to associate with the people around you. It creates an image of, you know, "don't talk to me."

This is a common sentiment, particularly among non-users. However, Ruby's remarks here conflict slightly with her comments quoted earlier in this chapter, which acknowledge a number of different reasons for PLD use. This was a frequent trend throughout my interviews; almost all of my participants were particularly passionate about the notion of PLDs as "excuses" to avoid interaction, and seemed to forget their other explanations for why people might use PLDs.

In fact, frequent contradictions arose when my participants presented their suspicions about the behaviours of *other* riders and when they justified their own behaviour. Jake, who was one of the people most concerned about the embarrassing or awkward experiences of social interaction, presented conflicting impressions of why he uses a PLD. Like many others, he was quick to state that he uses his PLD to feed his "obsession" with music, and uses the commute as an opportunity to connect with different types of music. He seemed to downplay his own attempts to limit social interaction. In the quotation below, he uses the word "sometimes" to describe how often he uses his headphones as conversation barriers and instead identifies his relationship with music as a primary factor in his PLD use:

I assume that a lot of people listen to it for the same reasons as me, but I'm also aware that other people listen to them solely because they don't want other people to talk to them. Other than that, I think it's just to enjoy music. I'm not saying that I enjoy music more than everybody else, but I think there's a good chance that I get more into it, or are a bit more obsessed with it [...] But I also realize that it's not always as simple as saying "I'm going to put my headphones on so that people won't talk to me"... I do that sometimes too, but I know that not everyone has their headphones on to stop people from talking to them. People use them for different reasons... and of course it often has the effect of limiting social interaction, but that may not be a person's intention.

Jake differentiates between his own appreciation for music and other users' attempts to halt social interaction. By the end of the above statement, we are given a conflicted understanding of the reasons for PLD use.

Contradictory findings may make it difficult to present a decisive explanation for why and how people use their listening devices. These contradictions exemplify the complexity of people's relationships with music, PLDs, the transit experience, and their social surroundings more generally, and encourages further exploration into the social and spatial effects of PLDs on buses and other public spaces.

Conclusion

From the varying interview material presented up to this point, I conclude that PLDs are used to exert control on the bus at different scales. Participants use the acoustic and visual features of PLDs to mediate their experience and manage social relations on their commute. Through a discussion of emotions, I have identified a micro-scale of attempted control over individual thoughts and behaviour. Some riders consciously pursue the personal choice or "freedom" to change songs and settings on the PLD, while others also have their moods changed unconsciously when the music takes hold of their thoughts. For example, personal music helps Logan manage his thoughts and filter out sounds that he finds distracting. Sarah and Isabella use music to sustain a particular mood, based on the feelings they attach to certain

types of music. Jake and Angela enjoy having their mood *changed* by their music, a more passive listening experience that is often fragmented and spontaneous.

PLDs are used as a technology of escape, which further mediates the bus experience. In this case, PLDs help users avoid certain aspects of the bus environment by redirecting their visual and acoustic attention to other focal points along the journey. Because music is so intertwined with a variety of sounds, rhythms, ideas, cultures, and politics, it easily connects a person to different places and settings without requiring physical movement. As such, music is a ‘vehicle’ that can take a person away from the bus environment, or in some cases, can make them feel connected to particular aspects of it. Most PLD users, however, seem to relish the opportunity to be removed from what they perceive as uncomfortable characteristics of the commute, including what my participants noted to be the “overwhelming” sensory experience, “annoying” fellow passengers, and constraining authoritative decisions related to scheduling and routes. For these people, PLDs have become an integral aspect of their commute, one that enables them to visit different places, people, and time periods in their minds and thus create a more tolerable bus ride.

More specifically, the act of creating a personal soundscape to escape other sounds on the bus highlights an attempt to control and organize the acoustic environment. As more people use PLDs, fewer conversations occur because the listeners are engaged in their music. When this happens, Sarah argued, the soundscape can become less “overwhelming,” as it is filtered by the music. As Tom noted, PLDs can be used to homogenize sound, making for a less chaotic and more docile bus experience. It is noteworthy, however, that the attempt to control the soundscape to establish acoustic order leads to effects that may not initially be intended. If the goal is to establish a sense of order amongst a “chaotic” public environment, the effect seems to change at different scales. Individuals may be able to block out certain sounds and people from their transit experiences, but PLD use has wider ramifications at the

inter-personal level which may re-establish the bus as a potentially chaotic site. The attempt to mentally escape the bus may be so successful that PLD users are less attentive to their surroundings. In an environment that sometimes requires communication between passengers, such as asking someone to pull an unreachable cord, the reluctance to ask for help becomes another social problem. For a non-PLD user like Eddie, this created another form of chaos or disorder. It is evident that although PLDs offer some control over certain aspects of the bus experience, their use produces unintended consequences that might contribute to the bus's label as a socially-awkward environment.

Moving to a different scale of management, PLD users mediate the social environment of the bus by taking advantage of the signals that their headphones send to other riders. While many acknowledge that other riders use PLDs to satisfy and build a deep connection with music, they tend to direct their interpretations more heavily to the impacts on interaction. In other words, the signals picked up most clearly by other riders include a desire for privacy and an unwillingness to talk with other riders, regardless of the listener's intentions. Riders who use their PLDs or interpret others' PLDs as tools to shape the social behaviour of other passengers, reproduce control in the bus environment; this is an ironic finding when we consider how desperately some of my participants wanted to escape the constraints of their everyday lives.

Riders on Brock routes can use their music to understand or reconstitute the places through which they travel and the people they encounter along the way. The bus environment, as discussed in Chapter Three, can be experienced using a variety of sensory observations. However, as we consider the narratives presented in this chapter, it is evident that attention is most heavily focused on the connection – or lack thereof – between the acoustic and the visual.

In the following chapter, I explore this connection in more depth by examining how music from PLDs help constitute the acoustic and non-acoustic elements of the bus environment, and in many ways, recontextualizes what riders observe along the journey. Furthermore, I argue that the relationship is recursive, as the observations made about a particular part of the bus ride can provide changing contexts for the music that is heard. PLDs, therefore, have implications for both relationships with music and the constitution of the socio-spatial environment of the bus. I address these two factors in the same chapter because, as my participants demonstrate, the two are inseparable.

Track Five
“It’s Not *Your Bus*”: Musical, Environmental, and Spatial Relationships

In this chapter, I explore how PLDs affect musical and spatial relationships in the bus environment, to present a culmination of the arguments I make over my empirical chapters, and to build evidence for ontological conceptions and epistemological implications of acoustic space, which will be addressed in the concluding chapter. I do this by separating the present chapter into three sections.

In the first section, I focus specifically on how PLD use mediates my participants’ relationship with music, in order to move beyond the existing scholarship on PLDs which tends to examine PLDs disproportionately under the lens of what Bull (2007) calls “mediated isolation.” Although the capacity for PLDs to create acoustic and social bubbles around individuals is crucial to the study of PLDs and social spaces, we should not ignore the impacts that these devices have on the way that *music* is consumed, interpreted, and produced in the environmental context. The section begins by considering how my participants use the metaphor of “drug addiction” to describe their obsessive attachment to listening to their PLDs. Lkening PLD use to addiction may help understand why and how people use PLDs, and their broader effects on the social environment. The possibility that people may have a stronger attachment to the device than the actual music leads into a discussion about how PLDs affect listeners’ relationships with music. I will focus particularly on responses from Eddie and Jake, who, despite their similarly strong connections with music, interpret the role of PLDs in shaping their identities in very different ways.¹⁶

¹⁶ I focus on Jake and Eddie because they devote more time than others to discussing their personal relationship with music and seemed more passionate about the role of PLDs in these relationships.

As I demonstrated in the previous chapter, PLDs have become so integrated into everyday bus routines that they are inseparable from the landscapes and soundscapes experienced through the bus environment. Accordingly, the second section of this chapter argues that the music that plays through PLDs mediates listener-riders' constitution of the places through which the bus travels, in effect, expanding transit-space beyond the physical boundaries of the bus. At the same time, listener-riders' apprehension of the surrounding environment influences their interpretation of *music*, allowing them to attach dynamic and respatialized meanings to the songs on their playlists. The section develops the argument that PLDs recontextualize landscape and soundscape, and contribute to a multi-layered transit experience.

In the final section of the chapter, I address the topic of sound and spatiality by focusing on personal space. As discussed in Chapter Four, PLDs create social boundaries around individuals, influencing interaction and behaviour. I argued that these effects are largely based on the *visual* characteristics of wearing headphones; in this chapter, I emphasize the socio-spatial implications of PLD use that are more strongly related to the *acoustic* properties associated with this phenomenon. Although my participants did not explicitly acknowledge the role of sound in their understanding and expectations of personal space, their comments suggest that they treat PLD-sound as an extension of it. I explore how my participants attempt to control and stratify space through *sound*, a difficult endeavour because of the generally uncontainable qualities of sound. Each of my participants has a sense of entitlement to personal space on the bus; as part of the desire to control some aspect of their experience, they prefer not to have their perceived personal space "invaded" by other individuals' music. I think that multi-sensory interpretations of personal space are indicative of the bus environment's layered, multi-dimensional spatialities.

In addition to being a culmination of my analysis of empirical findings, the chapter

lays the groundwork for discussing acoustic space in the final chapter, specifically the argument that properties of sound can also be properties of space, and that we use sound to explore, occupy, and manage spaces.

PLDs and Musical Identities: Addictive, Disposable, and Reinforced Relationships

“I Can’t Get Enough”: PLDs, Music, and Addictive Behaviour

In the previous chapter, I explored the notion of music as a metaphorical vehicle that transports people in varying ways beyond the physical enclosure of the bus. In this section, I examine the use of PLDs and music using the metaphor of addiction, a metaphor that emerged inductively from my participants’ responses. Comparisons between PLD use and drug-use emerged early in the research process, with participants identifying themselves as “users,” “non-users,” and “occasional users” of the musical devices. In some parts of this section, music is discussed as a *drug* that creates and feeds an addiction to the practice of listening to music on a PLD. Some participants told me that they were not heavily reliant on their PLDs in public spaces, but others expressed their relationship as an addiction or obsessive habit. I consider whether the addictive “drug” is the music, the device, or some combination, and explore how close attachments to PLDs affect the social and spatial experience of the bus journey.

PLDs have become integrated into the daily routines of my participants, and are an important part of their frequent travels between their homes and Brock University. Claire, Angela, and Jake, for example, are in the habit of putting their headphones in their ears as soon as they leave their home, and generally take them out only after they enter the hallways or classrooms of the university. This repetitive act has become *part* of their journey, similar to fastening a seatbelt on entering a vehicle; many PLD users are so accustomed to the tactile

experience of wearing headphones that they feel incomplete without them. As Angela stated:

I'm so used to wearing my headphones during that particular part of my day – when I'm taking the bus – that I feel naked without them! It's interesting that I don't feel weird without them in other places, like the classroom. I think I'm just so used to being able to wear headphones on the bus that I feel like something is missing when I don't have them in... especially when I look around and see other people wearing them.

Angela's remarks highlight a spatiality to PLD use that establishes public transit as an appropriate space for people to wear headphones and listen to personal music; indeed, we might say that public transit is a space that develops and feeds a PLD "addiction" that has similar characteristics to some drug-related addictions. Some PLD users have incorporated their devices so heavily into their days that their attention is focused on getting their next "fix" of music. Jake, who describes himself as someone who is obsessed with and addicted to music, exemplifies this type of behaviour:

Whenever I can find time to put my music on, *it's on*. The bus is great for that, because no one can tell you that you're not allowed to listen to your MP3 player. When I'm at school and am working with other people, a lot of times all I'll be thinking about is when I'll get a chance to listen to my music instead of having to work on a project or talk to other people... because in most situations, I'd rather be listening to my music. It's hard to concentrate sometimes though, when all I can think about is what I want to listen to the next chance I get.

It is noteworthy that Jake described *music* as his fix, and only identified the listening device as a means to get that music. He told me that he listens to his music using the "shuffle" feature, and does not feel that he spends much time flipping through songs or holding the device in his hands. Some of my other participants also seem addicted to the *device*, which has become more precious than the music that it emits. Logan considered both the music and the device as possible addictions:

...it's like a habit. Like smoking or something. Hmm... thinking about it as an addiction makes sense, whether it's an addiction to music, or an addiction to the act of playing around with the device. Especially the way people seem to automatically reach for their MP3 players when they get on the bus, or they'll just keep flipping through songs.

Ian echoed Logan's observations about constant clicking or flipping through songs on the

device. He felt that PLD users are more “fidgety” than riders who travelled without mobile devices, because they are frequently retrieving their PLDs from their pockets to switch songs, adjust volume levels, or scroll through other features. Like smokers, PLD users may be dependent on the tactile relationship with the device as well as on the actual music being played.

If music can be described metaphorically as a drug, is it possible to overdose on music? To explore contrasting interpretations of heavy PLD use, I turn to Jake and Eddie, both of whom are self-proclaimed “music lovers,” but who have dissimilar opinions about the impact of PLDs on people’s relationship with music.

Relationships with Music: Building, Breaking, and Changing Connections

I think, because I play music in a band, it’s part of my identity. I broke my hand and I couldn’t play drums, and I didn’t know who I *was* if I wasn’t playing drums... like, I really struggled with it [...] I was thinking, how would I see myself if I couldn’t participate in music? So, for me it goes beyond music... it’s part of who I *am*, music. (Eddie)

I *always* have music on... it sounds pretty clichéd and lame, but it’s basically my entire life, like everything I do I always have music on, or constantly finding new bands... like, going to concerts, my life is basically consumed by listening to music... if someone asks me what I like, the first thing I say is music. I can’t think of anything else that I like more. (Jake)

Eddie and Jake express heartfelt connections with music. It is an important facet of their identities, and much of their time is dedicated to maintaining these identities by consuming, producing, or thinking and talking about music. I begin by telling Eddie’s story, and will then contrast some of his thoughts and opinions with Jake’s experiences in order to further highlight the effect of PLDs on musical identities and relationships.

Eddie

Eddie's relationship to music is largely built through his experience as a musician, which is characterized by practicing and performing on his drums, traveling to gigs in St. Catharines and across Ontario, and recording albums with his band. In fact, he prefers to carefully select his moments for music, enjoying time away from music so that he does not grow tired or bored of it. He told me that he would rather drive in "silence" than with a radio or CD playing, and identifies dinner as an acceptable time for him to listen to music. He said:

I think, because music is such a part of who I am, I like to only listen to it at my leisure, and that is usually encroached upon by the necessity of all the commitments I have.... I've got a gig tonight but I don't want to play it, but I have to go, and so I'm going to play it. And that is going to be my time for music. That's why I drive around in silence, because I got my fill already, when I didn't want it. When I do want it, it's eating a meal at the table, and I'll put a CD on, which is *great* for me... that's my favourite time to listen to music, is when I'm sitting down at the table.

Listening to music only at specific times does not diminish Eddie's relationship with music, but it is noteworthy that his desire to travel in "silence" without a PLD is partly driven by getting his "fill" from other musical activities.

Eddie feels that his ability to select desirable moments for music to enter his daily life is crucial to maintaining what he considered a "healthy" relationship with music. In his opinion, PLDs have become so addictive for his fellow students that people no longer appreciate the music and instead place a higher value in the technology. He fears that PLD users are destroying a bond between artist and listener, or song and listener. Eddie attributed this weakened relationship to the high storage capacity of modern PLDs and the tendency to use the "shuffle" option instead of listening to a full album from start to finish. He added that the ability to download single songs has decreased album sales and has made the concept album, in particular, a rarity. He pondered the meaning listeners get from a single song when there are thousands more at their fingertips:

You can like a song one day, and you'll never hear it for the rest of your life ever again,

because you can have a thousand songs. So, what's one song? What does one song mean? The Beatles used to release one song, every month, and it would change the way people thought about things. Now, a single song, I mean, what is it? It's almost nothing. When you can have a thousand songs in your pocket, what does one song mean?

Eddie raises a compelling question, even if it is based on the uncertain assumption that people fill their entire storage capacity with 1000 songs, and they do not listen to full albums on their PLDs. He encourages reflection on how PLDs influence the way people value music; as a musician, he worries that PLD users do not show enough respect for the artist's hard work that goes into creating an album. He recognized that it is not necessarily the listener's fault; rather, downloading and distribution companies have made it easier for consumers to access single files from an album, often for free. Eddie thinks PLD users lose the ability to read liner notes that help contextualize the music and could perhaps enrich a relationship between the music, the artist, and the listener:

I don't know, it seems to me that looking back through history and the history of the relationship between music and music listeners... the relationship was rich... and now, I don't know that it's rich. I don't know anybody who goes out and really buys *all* Fall Out Boy albums, for example... or even any album. You can go on the Internet and get everything, so why buy the album? [...] So artists now have to really go above and beyond to get people to *buy* their album, because if they don't... you know, the consistent downside to downloading music, and an album's worth of music, in terms of the listener's side of things, is that they don't get that booklet... they don't get the [liner] notes.

Eddie feels that when a PLD user chooses single songs over entire albums as part of their listening behaviour – or further, only certain *sections* of one song before moving to the next file – then a disposable listening experience is created, which in his opinion points to a diminished respect and appreciation for music. To exemplify what he observes as an increasing trend towards listening to fragments of songs, he recalls a scene from *The Simpsons*:

I remember an episode of *The Simpsons* where The Guess Who were playing, and they said “this is a song off our new album,” and Homer goes, “no, play the old stuff!” and they go, “fine,” and start playing ‘Taking Care of Business,’ and he yells, “no, just the chorus!” and they cut right to the line, “taking care of business”... and to me, that's the

iPod. That's the same as Homer telling The Guess Who what to play, is the same as you flipping through your songs and only listening to one part of it. And say what you want about that, but to me, it cheapens it. That's just how I feel about it. Because I know what a song can mean to you, I know the potential that's there. But you feverishly flip through a song, and give it ten seconds, and go to the next one, and then the next one.

Eddie is concerned that listeners might not interpret an artist's music as it was intended by the artist if they did not consciously engage with the full song. As he explained, the experience would be "cheapened" if the listener, like Homer Simpson in the above quote, only paid attention to a fragment of a piece of music, adding that musicians tell a story with each song; if people do not listen from beginning to end, they are less likely to appreciate or understand the content and context of the music. Going beyond the song, he recognized that many albums are carefully assembled in a particular order; listening to the album out of order, or only playing one song on a PLD, would limit a person's ability to understand the "bigger picture" of the album.

Eddie argued that listening to music in such a fragmented, rapid way also perpetuates what he called a "disposable" listening experience. As he states in the quotation below, the design of modern PLDs to play MP3 files and the ease with which one can switch between entirely different pieces of music, contributes to disposable forms of consumption:

Well, music is a commodity that's consumed. I think, because of that, there's a relationship between music and consumption, and the way that we consume things today... it sort of renders every commodity *disposable*, so if I listen to a song a million times, I'm just going to throw it away and replace it with another one. And in that sense, there's no substantial relationship between artist and listener. It's there, it's consumed, and it's gone. And then it's the next one.

Indeed, listening to music "on the fly" may not lend itself to critical engagement with every song played on a PLD, especially if each song is replaced with a new one every few minutes or seconds. The time spent with one artist, in Eddie's mind, is not enough to appreciate the artist, the meaning of the song, and the work that went into its production.

Based on informal observations gathered over the six years I have spent among

university students, I think that, with increasing opportunities to keep occupied using technologies like PLDs and mobile phones (see Beer 2007; Chen 1998; Cowan 1987; Ferguson *et al.* 2007), people become accustomed to a certain degree of multi-sensory and multi-tasking “busy-ness.” Boredom was frequently cited as a major reason for PLD use, and many of my participants appreciated the ability to refresh their acoustic experience as often as they wished. As Eddie pointed out, some MP3 players can store over 1000 songs, but when he used his Discman, he had to select only two or three CDs to carry with him each day, “...and that meant being really faithful to two or three different artists.” Now, he argued, there is a lack of loyalty to artists because little time is dedicated to their work. I think that the development of PLD technology has effects similar to that of the television. In the past few decades, TV program options have steadily increased, and the invention of the remote control has made satisfying personal viewing desires much easier. Flipping through countless songs to find one that suits a person’s mood or helps contextualize a particular experience is not unlike flipping through television shows with a remote control instead of watching a program in its entirety.

The notion of listening to music “on the fly” highlights a fragmented experience of temporal and spatial rupture, which McLuhan (2004; see also Cavell 2002) might describe as discontinuity. Borrowing Tricia Rose’s (1994) language of flow, layering and rupture, which she uses to describe rap music and hip-hop culture, we can describe Eddie’s concerns about PLD use as concerns primarily about *rupture*. In other words, people actively embrace or create rupture in their listening experiences by switching songs before they finish, listening to different types of music instead of the same album, artist or genre, and they also inadvertently experience rupture due to the bus environment’s kinaesthetic characteristics, which distract listeners from their music in various ways. However, Rose’s notion of *flow*, which could also be described as continuity (McLuhan & Carpenter 1960), also occurs in most types of PLD

use, because the music constantly fills space, even if it shifts between keynote or background sounds and sound signals (Schafer 1994).

The ability to simply have music *playing* is valued by other participants, and some admit that their listening experience can be numbed by constant PLD use. Tom affirms Eddie's suspicions that people may not be strongly engaging with their music:

I'll be honest, sometimes when I listen to it too much, it becomes less about the music. If I'm listening to my music all day, there's no way I'll be able to listen to every song as closely as I'd like, because things happen to interrupt that [...] When my music is constantly on, I'm not really listening to everything, because I'm thinking of something else, or I'm bored of my music. It's funny though, because I'll still keep it turned on even if I'm bored of the music.

Here, we find a deep connection with the device and its ability to produce pleasurable keynote sounds; Tom would rather have his PLD playing, and eventually become disengaged with the music, than to travel without it. He raises an important point, however, that the bus journey is a dynamic experience full of interruptions that make it difficult to pay constant attention to one's music. It may be wishful thinking of Eddie to expect listeners to focus on their music for the entire bus ride, when the ride itself is full of rupture.

Earlier in the chapter, I asked if it was possible for people to overdose on music. Eddie's responses suggest that he feels people can at least *metaphorically* overdose on music, or on the device. In his opinion, this severs potentially rich connections among music, artists, and listeners. He finds it difficult to imagine being able to sustain a relationship with a song he connects with on emotional and mnemonic levels if he listened to the song every day on his PLD. In this regard, he relates hearing a song repeatedly to hearing it only once in what he called a "disposable" process:

If I had 'Stairway to Heaven' on my iPod and listened to it every day, I'd probably get sick of it, and now it's devoid of that special relationship it had with me.

His desire to maintain strong attachments to songs such as 'Stairway to Heaven,' and the relatively small number of artists whose music he enjoys, is achieved by carefully selecting

times for listening to music to ensure that he will not grow tired of his favourite music.

Eddie's interpretation of the impact of PLDs on musical relationships is insightful, thought-provoking, and comes with strong evidence from his everyday observations of PLD behaviour on the bus. However, his opinions are not shared by all participants. Jake, in particular, presented contrasting interpretations and experiences.

Jake

Jake likes music to accompany his daily activities as much as possible, and he spends a significant amount of time thinking critically about the songs he hears. Although he explained that there are aspects of his commute that make the bus ride an uncomfortable experience, he cherishes the time it provides for him to engage with personally-selected music.

Jake fosters an attitude of open mindedness about diverse musical styles. He takes pride in being recognized by his peers as a person who consumes – or is at least aware of – a broad range of artists and genres:

I think that because I listen to everything, I like having that identity of the person who listens to everything and knows so much about different styles.

Jake understands his PLDs to be important tools for sustaining and developing this kind of musical identity. The high storage capacity of his devices allows him to build a large, diverse collection of music. Whenever possible, he adds full albums to one or both of his PLDs, but he also appreciates the ability to include single downloaded files from artists whose albums are not available in the music stores he visits. Furthermore, as someone who listens to a wide variety of music, he appreciates the opportunities his PLDs provide to listen to music that he would not usually hear in the public spaces of St. Catharines, or on its available radio stations:

That's a downfall to liking music that isn't on the radio, it's not as accessible when you're in public space. So that's why I like having my MP3 player, it's almost like a personal radio station... without commercials.

Jake and Eddie are both unsatisfied with the music played on mainstream radio stations, as well as the presence of commercials that interrupt the flow of music, but they respond in different ways; Eddie would rather listen to no music than listen to a radio, and Jake creates a "personal radio station" by turning on his PLD. Jake's comments reveal a desire to control his acoustic experience, which provides him with a sense of agency in the listening process. Instead of being limited to one genre of music, he becomes his own Program Director and can explore diverse types of music in the span of a bus ride.

The "shuffle" option adds an element of surprise to the listening process that Jake enjoys, while the ability to switch songs at almost any moment allows him to have some control over what he hears. He explained:

I'll be using the shuffle and listening to a song and it's the last 15 seconds of the song... and I'll really want to hear what's coming on next, so I'll just hit shuffle if it's not that important to hear the end of the other song. It's a nice surprise when you're listening with the shuffle option, because you never know what's on next, but you know you'll probably like it because you picked the music that went on that MP3 player.

Eddie would argue that Jake harms his relationship with music by discarding the last 15 seconds of certain songs. Jake explained that his anticipation for the next song is so high that he will sacrifice listening to the end of a song in order to hear as many different songs as possible during his commute. He added that there are songs that he refuses to skip over and will keep listening to the entire song even after exiting the bus, but the *option* to reshape the songs of his daily soundtrack is important to him.

I suspect that Jake would never think that he could "overdose" on music, especially as long as there is music that he has never heard. Jake was not as concerned as Eddie about the number of times he listens to a song because he felt that hearing it even only once can be

enough to have a powerful musical experience. Although he always listens to an album in its entirety upon its purchase, he felt that there were times during his bus journeys that single songs from albums were sufficient. Jake's listening practices tend to reflect a fragmented listening style of which Eddie disapproves; however, it can be argued that this style compliments the dynamic experience of the bus ride in ways that full album-listening may not achieve.

As the bus travels through different environments, as new people enter and exit, and as people constantly negotiate factors like balance and interaction, Jake's music comes along for the ride. It can help him to constitute different aspects of his experience, and allows him to recontextualize the music to create his own interpretation of it, and the environments through which he passes. Musical relationships are deeply affected by the spaces through which they are formed and explored. As such, we cannot talk about music on the bus without talking about the relationship *between* music and the bus environment. In the following section, I explore how PLDs can respatialize and recontextualize both the transit environment and the music that accompanies the rider on his or her journey.

(Re-)contextualizing Landscapes and Soundscapes

In Chapter Four, I focused on participants' use of personal music to separate themselves from certain elements of the bus environment. However, the device never fully creates a separation between landscape and soundscape. Indeed, as I will show, the two reinforce each other, and can create new or unexpected experiences of music, place, and space. As Connell & Gibson (2003: 192) summarize, "Music shapes space, and spaces shape music."

Logan, like others, finds that his listening practices change depending on his material environment and his mental states, which are also continually in flux. Most of the time, however, music helps him think. It creates a mental space that facilitates the organization of

his thoughts, and allows him to establish new understandings and opinions about his various experiences. When he rides the bus with his PLD, he enjoys the opportunity it provides to be introspective in a public environment. He feels that his ability to think is catalyzed by a certain element of synchronicity that is achieved between the music he hears and the environment he sees while riding the bus. For example, he told me that driving through the rain on a bus gives him a unique opportunity to “do some thinking,” and he chooses music that he considers to match that particular setting in order to affect how he interprets his mood:

...I really notice the impact of rain on my mood and the type of music I want to hear. When it's raining, I automatically think of how it affects me psychologically, and I feel like I have to choose music that will connect with that.... Rainy days are different, they put you in a different state, they make you think differently, and I enjoy that.

Angela discussed the different experiences she has had with music and the exterior landscape while riding the bus. She acknowledged that music on her PLD creates a welcome distraction from what she sees outside the vehicle, but also felt that it established a connection with the visual environment, enhancing her journey:

Sometimes my music might distract me from the landscape outside of the bus. And really, that can be a welcome distraction, especially if I'm going through an area of town that is more built up, or with higher flows of traffic. You know, the kind of environment that isn't the most beautiful sight to look at. But at the same time, sometimes the music actually helps me focus more on the outside environment. I don't know, maybe it's to distract me from whatever is inside the bus. And sometimes, especially if it's like a more natural kind of environment, or trees or something nicer to look at, the music seems a bit more connected to that. Almost like the environment and the music compliment each other. But again, it would depend on the song. I'm sure that there are many songs on my iPod that would disgrace the natural landscape [laughs].

Angela evidently feels a certain obligation to find what she would consider to be a “match” between her acoustic and visual environment. This involves blocking or drowning out some elements of her surroundings, and enhancing other aspects. Although she noted that there are times when she pays very little attention to her music on her commute, much of our interview conversation reflected an active listening and thought process that fellow passengers might

not recognize is taking place.

Jake's music helps to contextualize the places along his bus route. He indicated that he experiences the area around Queenston Street in St. Catharines differently, depending on the music playing through his PLD:

Like, if I'm going through Queenston, obviously not the nicest area of town, I'll sometimes have music that seems to fit it... or like a blue-collar kind of sound, something that's got a working class sound, like Bruce Springsteen or a Gaslight Anthem song, it puts a whole different perspective than if I'm listening to a rap song. Not that I listen to a lot of Top 40 Rap music, so it's not about all the stuff that's on the radio, but just like Blackalicious or DL or something... just, like, how they create an image of their music about where they grew up and their social problems and stuff... so if I'm listening to that when I'm going home it feels more like a ghetto but if I'm listening to Springsteen it's not a ghetto, but more like a working class area. Or, if I'm listening to something depressing I might think "look at all these people around who are really down on their luck"... and so I look at different things when I'm listening to different types of music.

Jake, using personally and culturally mediated associations with different genres, experiences the area around Queenston Street in relation to the song playing at the time. Neither interpretation – using Bruce Springsteen's music or rap music – is necessarily more *accurate* than the other; rather, they provide different entry points into Jake's contextualization of that neighbourhood. The characteristics of the music and the place become so intertwined that they form a co-constituting relationship. In the following passage, we learn that even seemingly unrelated pieces of music can be connected to the bus environment, and that the landscape can create new interpretations of that music:

I'll just use rap as an example - if a rap song comes on, and I'm going through a rough area of town, and in the song they're talking about growing up in the projects, even though I'm clearly not in the projects like what they're talking about, like south-central LA or Compton or Harlem or something, it still has a little bit of relevance to the area. So that does kind of shape it, like, even Everlast was playing on my MP3 player one time - the song "What it's Like" - and I was going through Queenston and saw a prostitute and recognized a guy who once asked me if I had rolling papers, and so if you're listening to that kind of song in that setting, you think "wow, I'm a really judgmental person"... because that song is all about questioning if you really know what life is like for that person... the lyrics and the setting seem to reinforce each other, you know? And then the next day I'll be listening to a different song and think, "oh

these people are disgusting,” but if I’m listening to a song that has more of a message to it, then I’ll feel bad for them or see them in a different way. So it’s hard to say if it’s the music that affects how I think of that place and those people or if it’s the other way around. I guess it’s both, because I definitely think about the message of the music in different ways depending on the situation.

Not only does Jake’s PLD mediate the bus environment by making it more stimulating for him, but he is also able to receive, interpret, or reproduce different messages about the people and places he encounters along the way. His narrative highlights the notion that spatial experience is never fixed; rather, it is constantly under (re-)construction (Massey 2005; Thrift 1999; Tuan 2001). Music is part of a complex set of networks that shape this constitution of space.

Like Jake, Tom observes the people around him while traveling to school, and he connects his music to the people *inside* the vehicle. His song selection is often influenced by the types of people he sees on the bus, as well as the number of passengers.

I was listening to “Run Through the Jungle” by CCR, and it was on as I got on the bus, and the bus was packed... it just seemed to work so well, like the bus was the jungle. When the bus is packed, the riders seem a little less civil, for some reason... which made it feel even more like a jungle! [...] I like getting those good songs that really work with what I’m experiencing on the bus.

“Run Through the Jungle” might only have worked in that one circumstance on St.

Catharines Transit, but Tom’s description of the bus environment on that particular day demonstrates music’s capacity to influence our contextualization of the spaces we occupy.

In an exploration of the relationship between bodies and technology, Giuseppe Longo (2003) writes that we can not simply think of technology in addition to the human body; rather, technology has transformed human bodies (from *homo sapiens* to what he calls *homo technologicus*) in such a way that the two have become inseparable. Neither can we discuss technologies, such as PLDs, without recognizing their intimate connection with the people who consume, organize, and manipulate them in various ways. The bus is a vessel in which people, technologies, and spatialities exist, which continually mediate and reconstitute each

other.

As we have seen, our interpretations of music, landscape, and soundscape are inter-related and are never static. They constitute each other in different ways, as PLDs mediate multi-sensory experiences throughout the bus journey. PLDs contribute to a process of respatialization, and allow us to think further about space in acoustic terms. The following section shows how my participants understand relationships between sound and space, using their interpretations and definitions of *personal space* as an entry point into the complex topic of spatiality.

“It’s Not *Your Bus*”: Multi-dimensional Interpretations of Personal Space on Public Transit

The aestheticising practices of iPod users contribute to our understanding of what it means to ‘share’ urban space with others from within an auditory bubble, immune to the sounds of others. (Bull 2007: 49)

It’s not *your bus*, as much as that’s what the website and the advertisements say! It’s not the individual’s bus, it’s not *their* space. It’s a combined social space, and some people are just ignorant to that. (Ian)

Personal space is a social problem that public transit riders have to deal with, due largely to overlapping and conflicting understandings of and claims to personal space, particularly in environments with dense populations. Although people have mainly shared expectations of how people should behave on the bus, the tight space of the bus cannot accommodate everybody’s expectations at once; this contributes to a sense of tension that was described by several of my interview participants (see Chapter Three). A focus specifically on personal space as a type of spatiality allows us to understand how, as Bull (2007: 49) notes, individuals deal with sharing space with others. In this section, I explore how PLDs create overlapping experiences of public and private.

Early definitions of personal space tend to focus primarily on physical bodies.

Although these definitions have shifted to include a broader range of characteristics, they are useful starting points for thinking about personal space; indeed, as I demonstrate later in this section, these definitions emerge most frequently in my participants' descriptions of personal space, and are therefore important to acknowledge. Little (1965) defines personal space as a given area of space around an individual's body, noting that personal space is not fixed, but rather changes in different situations. Stillman (1978: 1671) similarly describes personal space as "an invisible boundary around the body." Although both definitions privilege physical contact over other forms of personal space, the notion that personal space changes in different contexts and is therefore immeasurable is useful for my own discussion about the bus as a physically-constricting public space.¹⁷ As I show later in this section, participants reluctantly accept that what they perceive to be their personal space will diminish on a crowded bus. Tuan (2001) also relates crowding to personal space, but notes that it is not necessarily solely based on high numbers of people occupying a space. He writes that crowding can be understood as an inability to maintain privacy, and along with this, "an awareness that one is observed," leading to a sense of vulnerability (2001: 60). Furthermore, Tuan relates feelings of spaciousness to the ability to desire, highlighting the situatedness involved in constituting space: "The world feels spacious and friendly when it accommodates our desires, and cramped when it frustrates them" (Tuan 2001: 65). In other words, not being in control of their surroundings on the bus may increase my participants' feelings of constraint and vulnerability, regardless of how many passengers are occupying the space.

Ruby remarked, "context is so significant to personal space." She recognized that

¹⁷ Although Little's (1965) and Stillman's (1978) definitions of personal space are outdated, these definitions correspond most with my participants' understandings of personal space. I realize that geographical interpretations have changed since then, but I have chosen to highlight research that aligns with my participants' explanations.

personal space varies spatially and temporally, and added that its boundaries are “erased” when one enters the bus. She felt that the physically-confining characteristics of the bus eliminated a person’s ability to maintain some sense of personal space, and stated that riders have to accept that the bus is a *public* space. She argued that riders must share the space on the bus without expecting the same degree of privacy that they might have in their own homes. Although Ruby accepts that she must sit in close quarters with other strangers, she noted that she and other riders still feel uncomfortable when riding the bus.

It is important to recognize that Ruby’s understanding of personal space emerges primarily out of observations about a rider’s ability to protect a certain amount of space around them that will allow them to move freely without coming into physical contact with other passengers. Some participants added that they preferred sitting with few riders around them because eye contact made them uncomfortable. Physical and optical contact were common discussion points among my interview participants, especially when I asked what they meant by personal space and “crowding.” Like Ruby, Eddie noted that *expectations* for personal space vary depending on the environment:

See, there’s a difference, I think. Certainly in different societies... like, you go to Japan and they will *pack* you on a subway car, and people are okay with it. And the way they deal with it is that there’s a total *lack* of interaction... everybody’s looking at the floor. So, I think, when you have a bigger personal space, you’re less tolerant.

Eddie told me that his expectations for personal space vary depending on the number of passengers on the bus. He stated that he is less tolerant of sitting close to another rider when many other seats are unoccupied. His level of tolerance changes, Eddie said, when the bus is so densely populated that there is simply no choice *but* to share a tight amount of space with other people. Upon further thought and discussion, Eddie added to his interpretation of personal space, identifying a multi-sensory process. He said:

...There’s a number of ways your personal space can be invaded on a bus, and I think they correspond to the number of senses you have.

Eddie followed this statement with various scenarios about how his understanding of personal space can be challenged or “invaded.” He identified strong perfume or body odour as an example of how scents can make him feel as if his personal space is being penetrated by someone else; as he exclaimed, “Keep your smell to yourself!” He also told me that having to listen to another rider’s personal cell phone conversation is disrespectful to his and other rider’s attempts to be alone with their thoughts.

Eddie’s comments raise an important point about the complexity of defining or securing personal space. Indeed, my interview discussions reveal a variety of ways people feel their personal space is “violated” on public transit, beyond the inability to move or sit without physical contact with other passengers. When we consider Eddie’s remarks about different sensory experiences, we recognize that sound and smell, for example, can be experienced as extensions of bodies. In other words, people like Eddie react strongly to a loud conversation or a “whiff” of someone else’s perfume because some facet of another person has entered their own personal space, even if that person is sitting at the opposite end of the bus. Personal space, then, can not simply be measured by a physical radius of unoccupied space around an individual, although that is an important concern for my participants. We have a richer understanding of the complexity of the bus environment if we acknowledge that riding the bus is a multisensory experience, and because of this, multi-dimensional problems of personal space arise.

The attempt to turn a public space into fragmented private spaces is not new to geographical scholarship. Geographers have studied the socio-spatial stratification of many common spaces, such as offices (Crook 2007); factories (Wainwright 2005); banks (McDowell & Court 1994); pubs (Kneale 1999); and fitness clubs (Spielvogel 2002). These studies demonstrate various power-laden attempts to control some space that provide some

people with the opportunity to dictate who or what is ‘in place’ or ‘out of place’ (Cresswell 1996). Rarely, though, do scholars consider the role of *sound* in the stratification of space (but see Attali 1985; Bull 2007; Connell & Gibson 2002; DeNora 2000; Frith 1996; McLeod 2006; Schafer 1994; Smith 2000; Thompson 2002).

Most participants did not discuss sound in the context of personal space until I probed the matter. To be sure, their responses to general questions about social interaction and PLD use revealed an awareness of an acoustic experience on the bus; however, when asked specifically about how sound fit into their understanding of personal space on the bus, most of my participants stated that they rarely thought about it, or found it too difficult to explain. On the other hand, they seemed eager to discuss their thoughts about hearing another rider’s music through their headphones, revealing implicit interpretations of how sound is connected to their perspectives on personal space. Other than Tom, who prefers his music loud on the bus, my PLD-using participants claimed that they listen to their music at a volume that is loud enough for them to hear, but quiet enough not to disturb other passengers. They expressed great frustration that other passengers permeate the public soundscape of the bus with their personal music.

Although my participants make an effort to control the volume of their music, it is nevertheless likely that they contribute to the very problem that they pin on other riders. The problem, as Bull (2000) notes, is that sound is difficult to fully contain. He writes (2000: 116), “sound is no respecter of ‘private’ space as it is multiple and amorphous.” My participants classify sounds as authorized and unauthorized (Leppert 1998), a task that becomes difficult when sound is layered and uncontained. Sounds blend together to create new acoustic environments, and while we may try to contain them, we are rarely successful. Headphones come in different shapes and sizes, with varying degrees of sound control, but most of my participants indicated that they use the headphones that came with their devices.

These low-quality earbuds are often unsuccessful at containing the music in an individual's ears, even when listening at a fairly low level.

My participants provided several explanations for why they were so irritated by other passengers' music. One explanation was that the music was transformed into *noise* because it was stripped of certain acoustic qualities.¹⁸ Another reason, as Claire mentioned, was that the noise escaping from other riders' headphones distracted her from her thoughts:

Sometimes I enjoy the time that the bus ride offers to just sit and think, without having to interact with anybody... but when I can hear another person's music, it is just so distracting, and I find my thoughts are interrupted by some jerk making too much noise. I just don't like being disturbed in that way.

Claire feels that her psychological space is infiltrated or disrupted by another person's stray music (see Leppert 1998); her thoughts shift to the noise that disturbs her, which she finds difficult to control. Alastair Hannay's (2005) research on "the public" and, more specifically, mobile phones, produced results that parallel Claire's concerns about loud PLD use. He identifies mobile phone use as a practice that "not only turns people away from the space they share but, with its unnatural loudness, even disturbs all opportunity for silent soliloquy, or any sense of silent community, to say nothing of quiet conversation, among the technologically under-equipped" (75). In other words, the sounds produced by others' mobile technologies are often considered disruptive, largely because they are difficult to control.

The issue of control was a common theme in my participants' explanations of their frustration over hearing other riders' music on the bus. They told me that even if it was music they would generally enjoy if they played it through their own PLDs, their acoustic experience on the bus ride was soured by having no control over the "unauthorized" sounds

¹⁸ Bull (2007: 33-34) provides an historical overview of noise in relation to 'private space.' He writes that "cultures with strong notions of 'private space' understood as a form of entitlement are more prone to dislike or discriminate against the noise of others," noting that noise was interpreted as 'uncivilized.' He states that such feelings were, and still are, largely class- and culture-based.

(Leppert 1998) they were “forced” to hear. Jill succinctly explained, “It’s just that I don’t think that those people should get to choose what everyone else is forced to hear.” Jake described this behaviour as “selfish,” adding that he thinks everyone has a right to do what they wish in their own personal space, but only to the point that it does not interrupt other people. Eddie expressed a similar opinion:

See, to me, if I’m not picking the music, then that’s an invasion of my personal space [...] If it was some music that I didn’t like, and I had to listen to it in a public space, then that goes against my idea of public space. It’s democratic, it’s not a dictatorship. You don’t get to dictate what I listen to on the bus, that’s not how I *know* society.

Eddie’s response suggests that he has an existing set of expectations for social behaviour on the bus. He wants people to act in what he describes as a democratic way, without one passenger having control over other riders’ experiences. In the opening quotation of this section, Ian referenced St. Catharines Transit’s motto, *Your Bus*, echoed Eddie’s perspective that the bus is meant to be shared, and pointed out the irony of the slogan. Ian did not appreciate other people “claiming” the bus as their own personal space with their music, because it is a community transit system. I think the irritation that comes with having one’s acoustic experience influenced by another rider is exacerbated by the fact that the riders can not escape the situation by moving, because the bus is often too crowded or has not reached the person’s destination.

Eddie’s frustration with hearing other people’s music goes beyond the inability to have control over his acoustic experience. He interprets the acoustic disruption as an attack on his otherwise positive relationship with music. He explained:

It’s like now, your private practices are infringing on my private practices, and that’s not cool [...] And it rubs me the wrong way because it’s music that’s doing it, something that I love that’s pissing me off. When music pisses me off, it gets me a little extra mad than the next thing that bothers me, because it’s music - it’s personal to me. It’s like a family member cutting you down, and you want to say, “No, not from you! Anybody but you!” [...] So I don’t like that, I’ve got an amicable relationship with music, and I don’t like being betrayed by it.

For many PLD users, the response to hearing another person's music is to turn up their own music. Sarah told me that "it sucks when people are listening to their music really loud, but I'll just deal with it. I usually do that by listening to my iPod, or if it's already on, I'll turn up my music to try to drown the other person's out." Sarah's solution becomes another rider's problem, because increasing the volume level may cause her own music to escape her headphones and permeate the broader acoustic environment. Using a PLD to drown out other music creates a cyclical cause-and-effect relationship that transforms the generic acoustic environment.

A sense of tension between public and personal or private space emerges from my participants' responses. They discussed different tactics for securing personal space, or tolerating a lack thereof, but were also quick to point out that the bus is intended to be a *public* space. Eddie admitted that after taking university courses that address public and private space he struggled with the question of how public the bus actually *is*, and how that sense of public is affected by PLD use. Mimicking what he feels is the behaviour of other riders, he pondered:

"I'm in public, but I'm not going to participate in public"... so is it public? I'm wrestling with that question myself ... I'm really starting to think about public and private as not two spheres but something that's overlapped.

Indeed, there are overlapping qualities of public and private in almost any space. On the city bus, however, the complexity of this overlap is heightened by technologies that allow people to mentally escape the bus environment while being physically or visibly part of it. PLDs respatialize the bus and its surrounding environment in both visual and acoustic ways, allowing individuals to create micro-spaces or "acoustic bubbles" (Bull 2007) for themselves, and reconstituting the bus as an "acceptable" space for the devices. Eddie thought that people take advantage of the device's ability to privatize a public environment, and felt that it added an element of exclusion to the bus journey, particularly for those who didn't use PLDs:

It's like this tight quarter of public space that's, like, eighty different private spaces, so it's tough to negotiate. I feel out of place, I feel like I don't belong there, because I don't have my "walls" up. You know... it's like, "relax, I'm not going to try to talk to you, just because I don't have an iPod," so that's typically how I feel. But then I feel like I've got to come up with something that I have to do, like, I always have crosswords on me, so maybe I'll get a crossword out just to put my walls up, and make everybody else okay.

Despite his choice to ride the bus without a PLD, Eddie's own behaviour is affected by the presence of PLDs. He senses that he is "out of place" without the acoustic and visual barrier of a PLD, and is made to feel as if he should find some other means to create his own private bubble. Logan echoed Eddie's sentiments about privatizing the bus with PLDs, but acknowledged how the ability to privatize the bus with music might be appealing to riders by referring back to the ability to *control* some aspect of their experience through what Bull (2007) describes as "auditory privatization":

It seems like MP3 players are generating privatized space. Really, that's the only space that you have to yourself, and it's the only space where you really get to choose what happens in it, because you get to pick the music, and the volume, and control those kinds of things. So it's like the example of creating a queer space in a heteronormative one, it's privatizing it in a way. You're no longer acting in a public way, you're acting the way that you would in the private spaces of your own home, but just through the music and nothing else. MP3 players create a small, privatized space around yourself.¹⁹

Perhaps the most important point to take out of Eddie's and Logan's statements above is that the bus environment has multi-dimensional spatial properties. It is not simply *one* public space, nor is it completely privatized; it is a multiplicity of different spatial layers, characterized by different sensory experiences and dynamically shaped by the presence of technologies like PLDs that reconstitute the bus journey in varying ways. These spaces are therefore continually (*re-*)*produced* by the people and technologies that occupy them

¹⁹ During our interview, I told Logan about Gill Valentine's (1995) research on queer identities and the music of kd lang, which showed that some of her lesbian participants used Walkmans to transform heteronormative public spaces into private queer spaces, which provided them with a sense of comfort and belonging. When queer space was mentioned in Logan's response, he was referring to Valentine's research.

(Massey 2005).

My interview discussions provide strong evidence that public environments like the city bus are constituted in relation to the presence and use of PLDs, and my participants note that the quest to protect certain expectations for personal space has influenced sociality in the bus environment. Indeed, many Brock students seem more willing to engage with their mobile technologies than with fellow riders. Nevertheless, if people still ride the bus together, they never fully depart from public relationships. As Katz and Aakhus (2002) note, “perpetual contact” can occur with both technologies like PLDs *and* people who share a given space (see also Katz and Aakhus 2003 for a similar study on personal communication technologies such as the mobile phone).

Conclusion

Although my participants share some similar ideas about music, sociality, and space, they occasionally have conflicting interpretations of how the presence and use of PLDs affect their experience of riding the bus, and how they understand the role of PLDs in their relationships with music, the bus environment, and spatiality.

In the chapter’s first section, I dealt specifically with the impact of PLDs on the listener-rider’s relationship with music, noting that *some* PLD use can be described metaphorically as drug-like or addictive behaviour. This was interpreted in different ways by my participants, and I turned to the perspectives of Eddie and Jake to explore how they perceive PLDs to be situated in their musical relationships and identities. From Eddie, we learned that music can be a strong facet of one’s identity, but this does not mean that PLDs will necessarily strengthen that bond, and Eddie has chosen to travel without a PLD to ensure that he does not “overdose” on music or jeopardize loyalties to specific artists. Jake provides a different perspective, explaining that his musical identity is *developed* with the help of his

PLD, which allows him to access a large collection of songs and contributes to his identity as someone who has an appreciation for diverse types of music.

Just as perspectives about music are neither universal nor static, connections between music and the surrounding bus environment are highly contextual and constantly in flux. The bus experience is multi-sensory and transitory, so acoustic and visual observations about the bus journey and its accompanying music are likely to influence each other, contributing to processes of recontextualization. Music seemed to reinforce some participants' emotions, along with their visual and acoustic observations of bus environment, while others noted occurrences of juxtaposition. In other instances, traveling through a particular area allowed people like Jake to think critically about the meanings of certain songs. People and places are thus connected in different ways, with *both* music and the bus environment being continually reconstituted such that they have become inseparable from the overall transit experience.

Drawing from the last two sections of this chapter, we begin to recognize that properties of sound – such as fluidity, layering, and the inability to be fully contained – are also properties of space. People weave through overlapping spaces when listening to their music on the bus, and if we think of spaces as “open” (Massey 2005), we can embrace the notion that the bus can never be fully public, or fully private. In the final section, I used personal space as an example of one conceptualization of space that is dynamic, multi-layered, contested, and highly influenced by contextual elements of an individual's journey. Responses from my participants emphasize a blurring of public and private space characteristics which add to the tension described in Chapter Three; the city bus is a shared space, but it is also segregated by different tactics or manoeuvres (see Tonkiss 2005) to protect a sense of privacy. One attempt to achieve this privacy, though of course never fully successful, is through the use of PLDs to delineate personal space boundaries. As I have demonstrated, people become uncomfortable in close physical quarters with others, and also

unconsciously establish expectations for an acoustic personal space. Sound is used to delineate the space of the bus in different ways, and to expand and protect personal space *in* the bus; sound is, therefore, part of my participants' explanations for how their conception of their personal space is challenged by other riders.

The notion that we use sound to explore, constitute, and occupy our everyday spaces points to an acoustic sensibility or "acoustemology" of experience (Bull 2007) that should not go unstudied in geographical scholarship. When we consider the possibility that sound and space can share co-constitutive properties, we can use acoustic space as an epistemological tool through which we can examine relationships between music, place, and self. In the concluding chapter that follows, I explain how conceptions of acoustic space work alongside my research and implicate everyday experience, and I consider how we might analyze acoustic space further in future research.

Track Six

End of Playlist: Previous Track, Shuffle, Next Track

The previous three chapters highlighted empirical findings that emerged from in-depth discussions with my eleven interview participants. I have tried to incorporate as many different experiences and personal interpretations as possible to give a broad sense of why and how people use PLDs on public transit, and to show associated implications of this activity, including reduced social interaction and the recontextualization of space and music.

This concluding chapter serves three purposes, as guided by three important functions on my iPod: Previous Track, Shuffle, and Next Track. In the “Previous Track” section, I revisit the empirical findings discussed in Chapters Three, Four, and Five, in order to reflect on the complexity of the PLD phenomenon in relation to the experience of space. After reviewing some of the key conclusions of the analytical chapters, I bridge (or “Shuffle”) empirical and theoretical discussions in the second section. I draw from the conceptual framework discussed in Chapter Two to consider how PLD use on public transit reflects existing understandings of acoustic space. While the purpose of this section is to explore how PLDs allow us to explore the acoustic properties of space, it is also crucial that we acknowledge gaps in acoustic space theory. I end the section with a somewhat speculative argument that PLD use might also retrieve visual properties of space. In doing so, I demonstrate that acoustic space is a complex and unstable concept; we must therefore continue to develop and question its foundational assumptions. Drawing from the discussion in the second section, I press “Next Track” to highlight some potentially fruitful future directions that emerge from my research. As I have demonstrated throughout this thesis, the topic of PLDs in public spaces like the bus is complicated. Although my research helps to develop existing interpretations of sound, music, and spatiality, there are plenty of opportunities for further exploration.

“Previous Track”: Revisiting Empirical Findings

In Chapter Three, I examined how my participants experienced the space and time of their bus journey. Most ride the bus because it is relatively inexpensive in comparison to a personal automobile, and some take public transit reluctantly and apprehensively. Many of my participants feel uncomfortable, awkward, and embarrassed on the bus. These problems are exacerbated by the bus’s physical confinement, which make it a difficult environment to negotiate. The close proximity to other riders creates interactions that my participants find embarrassing or uncomfortable. Different social tactics are used as forms of protection and distraction from such concerns, to “make do” with their situations (see de Certeau 1984). Fran Tonkiss (2005: 11) refers to these negotiations as “mundane manoeuvres of everyday routine” and demonstrates that public spaces create situations of intimacy and distancing.

In addition to experiencing the bus as a site for potential embarrassment, participants’ narratives highlight the kinaesthetic characteristics of the bus journey. Riding the bus, with or without PLDs, is a multi-sensory experience. Participants’ narratives describe interplays between a variety of senses. These sensory experiences are continually in flux, not least because the bus is in motion and passengers must negotiate balance as a constant part of the journey.

My participants identified the bus as a crowded environment, particularly in terms of its physically-constricting characteristics and high levels of ridership at peak times, which restrict individual movement. When asked about sonic aspects of the bus ride, participants like Jill and Eddie described the acoustic experience as “overwhelming,” revealing a different type of crowding that is perhaps more complex because of the overlapping, gyroscopic, and reverberant properties of sound (McLuhan 1960).

As a confined, mobile space which is used mainly for the purpose of transporting people to a pre-determined destination, the bus is experienced as inescapable. Students felt

forced to stay on the bus despite wanting to escape uncomfortable social situations associated with the transit-space. Some riders use PLDs as a tactic to cope with their entrapment on the bus. The meanings and affective qualities attached to music coming through riders' headphones provide a psychological disconnect from the bus environment in visual and acoustic ways. Visually, headphones do this by creating a signal to be left alone (Beer 2007; Bull 2007), thus avoiding certain forms of interaction with other riders. Acoustically, the sound emitted through an individual's device has the effect of expanding space beyond the physical confines of the bus, allowing people to disconnect themselves from the surrounding environment and delineate personal boundaries.

The bus is considered by my participants as primarily a transitory space with little social relevance. Indeed, students perceived the bus almost solely as a vehicle that gets them "from Point A to Point B" (Eddie), and most participants, with the exception of Isabella, did not seem to value it for any other social opportunities. They pointed out that social interaction seems to be discouraged, creating what Bull (2007: 9) identifies as a "chilly" space, one that is characterized by social distancing and disconnectivity. My participants' responses reflect what Augé (2008) identifies as a non-place or empty space, characterized by anonymity and transition. However, I disagree with the argument that spaces of transition and perceived 'non-activity' are non-spaces with little or no meaning, and prefer to use Hulme & Truch's (2006) notion of 'interspace,' or meaningful transitory space-time. As Tonkiss argues (2005: 3), "[t]here is no such thing, in a social sense, as empty space. Space is always and only produced as a complex of relationships and separations, presences and absences." Even with the absence of "meaningful" social interaction, the transit-space is never "empty" or non-existent as a social space, because it is continually reproduced and reconstituted by socio-spatial relationships.

My research shows that my participants inscribe the space with meaning on a daily

basis, whether or not they use PLDs. Eddie, a non-PLD user, told me that “there is no typical transit journey”, suggesting that there may be opportunities to attach meaning to the commute. Furthermore, in describing the bus environment as a space with disciplinary properties, such as scheduling and seating arrangements, my participants seem to suggest that the bus is more than just a non-space or interspace. Those who found the journey “incredibly mundane” (Angela) also recognized the opportunities the bus provides to use PLDs and constitute the space through their music.

A central finding that emerged from my research is that PLDs, and the music that they hold, actively (re-)shape environments, and influence how people constitute their surroundings. In Chapter Four, I examined how PLDs mediate the bus environment. Like Bull’s (2007) findings, PLDs are used by my participants to overcome boredom, mediate solitude, and to “fill” time with activity. In each of these cases, people use PLDs to *manage* different aspects of their experience.

The features of recent PLDs privilege individual consumption and choice; a listener can control volume levels and select songs to create a personalized soundscape that is distinct from other riders’ acoustic experiences. Contributing to the diverse perceptions of the bus journey is music’s affective power, which has the capacity to turn what some participants consider to be a mundane trip into a completely different emotional journey.²⁰ Participants evaluate how the bus makes them feel, and reflect on their emotional states much more than I think they acknowledge;²¹ their music can enhance, juxtapose, or transform their moods along the way. This influences how the bus environment is constituted.

²⁰ See Krumans (2002) for a discussion of music and affect, and music’s ability to connect cognition and emotion.

²¹ Most of my participants initially described the bus journey as mundane. However, as the interview progressed and participants had the chance to talk further about their experiences, it became apparent through their narratives that they frequently re-evaluated their emotional responses throughout the bus ride.

PLD users' headphones provide ways for passengers to engage with places, people and contexts that are materially-absent from the surrounding transit-space. Isabella, for example, used to listen to Cuban music on her PLD to connect with her cultural heritage and access sounds and rhythms that were not commonly heard in St. Catharines. This kind of utility allows people to experience different places at any time; my participants could take in the bus journey while being mentally transported to other places, and in doing so, create a layered sense of place. This enables people to enact multiple facets of identity in one bus journey (see also Valentine 1995). For some participants, their music had such a filtering power that they felt they could almost completely escape the bus environment by focusing their thoughts on the associations conjured by their music. In this regard, music, coupled with the ability to feel in control over some aspect of the journey, reconstitutes the bus environment in ways that make it more tolerable for some riders. This tolerability relates to what Bull (2007) describes as "warming up" a person's experience, in a process that contributes to the reconstitution of space.

Ironically, those of my participants who appreciate the opportunity to "warm up" what they perceive to be a "chilly" social space (Bull 2007) by using PLDs also reproduce "chilliness" by creating what participants like Eddie and Ian describe as an anti-social public space. These observations are commensurate with Bull's argument about the dialectic of urban warmth and chill:

The more we warm up our private spaces of communication the chillier the urban environment becomes, thus furthering the desire and need to communicate with absent others or to commune privately with the products of the cultural industry.

(2007: 9)

When participants warm up the bus environment by connecting with what Bull calls "absent others" associated with the music, they become more disconnected from other riders and their immediate surroundings. In fact, many of my participants said that PLD users, including

themselves, rely on the symbolic power of the headphones to signal a desire to be left alone. Even if it is not my participants' intention to create a social barrier between themselves and other riders, fellow passengers interpret headphones as a sign that listeners do not want to engage in social interaction, and indeed, interaction becomes more difficult. Riders use PLDs to discipline themselves and each other to behave in particular ways on the bus, an ironic finding when we consider my participants' desire to *escape* certain disciplinary characteristics of the bus environment. Furthermore, those who wish to have a conversation with another rider are now made to feel as if their behaviour is out-of-place, or they become self-conscious that their "lone conversation," as Eddie called it, would disrupt the hushed social environment. PLDs do not simply affect the environment for *users* of the devices; they have the potential to influence the behaviours and perceptions of *all* riders on the bus.

In Chapter Five, I presented different interpretations of how listening to a PLD on the bus affects musical, environmental, and spatial relationships. Several participants, such as Jake, Ian, and Logan, likened heavy PLD use to an addiction. Eddie questioned whether listeners actually appreciated and engaged with the music, and expressed concern that people value the *device* more than the songs and artists represented in their music collection. Conflicting interpretations of how PLDs affect riders' relationship with music and their surrounding environment show that PLD use is a complex phenomenon. Adding to this complexity is the notion that PLD use is simultaneously multi-sensory and extra-sensory, because it blends different sensory observations with social and affective experiences. These combinations vary for each individual, meaning that certain aspects or functions may be emphasized over others. While some people appreciate the ability to become immersed in their music, highlighting an *acoustic* practice, others mainly value the device as a *visual* and *social* tool to influence riders' behaviour on the bus and constitute the transit-space as a PLD-laden environment.

Indeed, PLDs have become so heavily integrated into riders' experiences of the bus routes studied in this project that they now appear to be built into the characteristics or constitution of the transit-space. The personal soundscapes created through a PLD recontextualize the surrounding environment at the same time as the environment recontextualizes the *music*. This co-constitutive process adds another layer of complexity to the PLD phenomenon and provides opportunities for respatialization. People use PLDs to mediate the transit-space in different ways, and in doing so, they reshape conceptualizations and experiences of space. In Chapter Five, I concluded that PLDs introduce elements of privacy, isolation, and individuality into an environment that is often characterized as a public, shared space. Music dismantles spatial boundaries by allowing a person to access multiple spaces at once, yet PLDs also create new barriers by filtering sounds, and establishing visual signals that are read as a desire to be left alone.

Musical sounds also become an extension of personal space when they "spill out" into the public soundscape. My participants demonstrated the overlapping, unbounded, and multi-directional properties of acoustic space when they expressed their frustration about having their personal acoustic space "invaded" by the music of other riders. Despite remarks that headphones created an anti-social environment, PLD use was not a great concern to my participants until it transcended the boundaries of "acceptable" PLD behaviour, meaning that other passengers' sounds were not effectively contained. This is a useful finding in terms of thinking through the notion of acoustic space. Schafer (1994) and McLuhan (1960, 1968; see also Cavell 2002) write that one of sound's special characteristics is that it is difficult to contain or control, and McLuhan argues that we should embrace this as a component of acoustic space. However, my participants' behaviours seem to demonstrate a desire to control

or conquer, rather than embrace, those sonic properties of acoustic space.²² It may be that people are more accepting of the *visual* act of listening to music than the *acoustic* practice, especially once someone else's music permeates their own acoustic experience.

I am not suggesting that PLD use does not work with acoustic space in other ways; indeed, much of this thesis is predicated on the argument that we can use empirical findings about PLD use to further develop acoustic space notions. PLDs offer the capacity to add different sonic, musical, and visual layers to an already kinaesthetic bus journey. The following section revisits the notion of acoustic space, and thereby connects my empirical findings with a theoretical framework. After discussing my findings in the context of acoustic space, I then provide thoughts for future directions by questioning how personal music fits into acoustic space theories. My overall point is that PLDs both enhance and disrupt an acoustic space sensibility.

“Shuffle”: Bridging Theoretical Frameworks and Empirical Findings

Theoretical Overview

In Chapter Two, I described acoustic space as both an ontology and an epistemology. An ontological position on acoustic space is that space has kinaesthetic properties, one of which is sound (see Cavell 2002; McLuhan 2004; McLuhan & Carpenter 1960; McLuhan & Parker 1968; Smith 2000). Because space *includes* sound, space also has some of the *properties* of sound; these sonic properties are a useful starting point for understanding acoustic space.

²² I am not alone in considering the visual spatialization of the acoustic. Carpenter and McLuhan examine this topic in their co-edited anthology of articles from Carpenter's journals, *Explorations in Communication* (1960). Drawing from this body of literature, Gascia Ouzounian (2007) explores negotiations of visual and acoustic space using the 1958 Brussels World Fair as a case study.

From an epistemological perspective, by understanding spatiality, or *using* space, only according to its visual properties, we are ignoring its nuanced acoustic properties. One way to *know* about space is to pay attention to its acoustic properties; as Bull (2007) writes, individuals explore, constitute, and appropriate space partly through sound. In this thesis, I show that music played through PLDs re-contextualizes the bus environment, influencing how people experience the bus journey. They also use their music to carve out personal spaces for themselves, wrapping themselves in “acoustic bubbles” (Beer 2007; Bull 2000, 2006, and 2007; Cosentino 2006; Levy 2006) which overlap different understandings of space, and allow them to explore different relationships between music, place, and identity.

When Tricia Rose (1994) writes about rap’s sonic characteristics, she uses the language of “flow”, “layering,” and “rupture,” which I think is commensurate with a kinaesthetic ontology of space. Using Rose’s language, and moving beyond a discussion of rap music, I make the ontological argument that sounds are fluid (“flow”), and move throughout different environments in different directions; in music, rhythm is a special characteristic that puts sounds in motion, creating a continuous acoustic experience. If sounds help to constitute space, then space also has properties of openness (Massey 2005) and fluidity. Sounds overlap and combine in complex ways (“layering”), and can be experienced simultaneously, unlike overlapping visual objects (McLuhan 2004; McLuhan & Carpenter 1960; Sui 2000). As I demonstrate in this thesis, sounds combine with each other on the bus and with other sensory events to create a dynamic, multi-layered experience. Furthermore, different types of spaces can overlap, as is evident in the example of acoustic personal and public space in Chapter Five. Finally, because sounds move, they can also be experienced as fleeting and discontinuous, and can be interrupted by other sensory events at any moment (“rupture”). Acoustic space is therefore constantly being reshaped, in part by a tension between continuity and discontinuity.

Existing theories of acoustic space make the argument that space is non-linear, simultaneous, multi-layered, and non-perspectival (Carpenter & McLuhan 1960; Cavell 2002; McLuhan 1968, 2004; Smith 1994, 1997, 2000; Sui 2000). These understandings provide us with epistemological tools to think about our worlds beyond visual interpretations of space, which tend to be based on linear, perspectival, and sequential conceptualizations. Space, like sound, surrounds us; it has reflective and reverberant properties. My participants' observations about the bus environment seem to acknowledge these acoustic space ontologies, as their accounts reflect an awareness of some of the ways that their experience is shaped by the gyroscopic, boundary-less qualities of sound. When asked about the vehicle's soundscape, they noted the layering of multiple sounds and identified how different sensory combinations affected their commute experience. Eddie and Jill, for example, described this acoustic experience as "overwhelming" because of the difficulty in controlling which sounds are heard. To some of my participants, an overwhelming soundscape is problematic because it reduces the ability to control their acoustic environment.

Empirical Evidence of Acoustic Space

PLDs are a tool for many of my participants to introduce some degree of control into their acoustic experience. As Tom noted, he can increase the volume of his music to filter or "homogenize" the sounds that he hears on the bus. Tom felt that the ability to organize his acoustic environment into a personal soundscape had the effect of thinning the space; in his opinion, this was a form of sonic management that enabled him to feel relaxed on the bus. It should be noted, however, that not all of my participants listen to their PLDs at high volumes like Tom. In many cases, the music heard through participants' headphones *combined* with other sounds, rather than drowned them out, creating a multi-layered listening experience. Meanings and affective associations attached to the music intersect with various other

sensory stimuli in a process that creates diverse constitutions of the bus environment.

Participants use PLDs to deal with the acoustic experience of the bus ride; in many cases, they also use sound to solve problems associated with non-sonic aspects of the trip. This process of sense transference and overlay highlights the kinaesthetic character of acoustic space. Although participants noted that they used their PLDs to drown out other sounds, such as conversations and roaring engines, they were more interested in using their PLD to solve non-sonic problems connected to crowding and balance. Some of these problems also include extra-sensory or social experiences, such as embarrassment or social discomfort. In other words, sound seems to be a larger part of the solution than of the problem. Ironically, one of the most frequently identified concerns that actually *is* related to sound is the frustration of hearing another rider's music through his or her headphones. In this case, the sonic solution to what is likely a non-sonic problem *creates* an acoustic conflict. Sensory and extra-sensory issues are therefore entangled in a complex interplay that extends beyond a linear interpretation of cause-and-effect.

Acoustic space is still an underdeveloped topic that requires further thought and investigation beyond this thesis. Although my research supports and builds on existing acoustic space theory, there are many entry points and questions that remain unexplored. One particular concern, which I will introduce in the following section, is the extent to which PLD technology may actually disrupt acoustic space sensibilities.

Does Music “Drown Out” Acoustic Space?

Michael Bull writes, “Through the power of a privatised sound world the world becomes intimate, known, and possessed” (2007:47). He shows how a personalized soundscape enables individuals to experience their surroundings in ways that might not be achieved through other means. Similarly, PLDs allow my participants to explore the world with music,

using it as an epistemological tool to (re-)constitute the different environments through which they pass. I think this provides new opportunities to connect with materially-absent people and places through mnemonic and affective associations. However, privatised sound worlds highlight an exclusionary process that privileges certain musical sounds over other sounds in the bus environment.

Despite the ways in which the bus's sonic environment seems to emphasize the ontological acoustic properties of space, we should not ignore the contradictory nature of music as a category of sound when thinking about acoustic space. Indeed, while some aspects of PLD use amplify the acoustic properties of spatiality, the PLD phenomenon is a complicated case because the properties of acoustic space are disrupted by the fact that a listener can almost completely drown out other sounds in the bus environment. This filtering process enforces continuity, singularity and directionality in an otherwise fluid and discontinuous soundscape.

Acoustic space as a concept theorizes space as being less ordered and less controllable than do other interpretations of space (Carpenter & McLuhan 1960; Cavell 2002; McLuhan 2004). This is largely associated with the difficulty of containing or managing sound, an observation that was made by Jill and Jake in their interviews. My study shows, however, that PLDs also allow individuals to control the acoustic aspects of space. PLD technology introduces choice, control, and mediation of the sonic experience, which provides the capacity to eradicate certain acoustic space properties.

It may be useful to think about *musical* space as something that simultaneously supports and disrupts the experience of spatiality as acoustic. Music, as Frith (1996) and DeNora (2000) argue, has super-sonic affective power, and therefore influences us at an emotional level that is not achieved to the same degree by most other sounds. Unlike other sounds that are common to the bus environment, such as those made by the vehicle or other

traffic, music through a PLD is interventionary; it is brought into the environment with the individual, along with pre-existing associations, memories, and evocations. For example, when Jake compared the St. Catharines neighbourhood of Queenston Street with Compton, he carries pre-existing interpretations of Compton through his music, which he then attaches to Queenston. When Jake enters the bus with his PLD, he brings affective and interpretive possibilities in with it that may be quite different from the existing acoustic and visual environment. This provides the opportunity to reconstitute certain environments; however, it encourages us to consider how music, in addition to retrieving acoustic properties of space, might also *suppress* them.

PLD use, as a form of musical space, in some ways unhinges certain properties of acoustic space. This depends largely on how PLDs are being used. People like Tom, who listen to their PLDs at such a high volume that they almost completely drown out all other sounds, experience the bus environment much differently and in more visual space terms than individuals like Claire and Angela, who prefer to let their music blend with other non-musical sounds and therefore enhance acoustic space characteristics. In the latter case, we can understand how PLDs allow a listener to personalize a soundscape without necessarily prioritizing or ordering sounds; this is commensurate with more inclusive notions of acoustic space. In the former case, headphones may prevent a person from experiencing the multi-layered, kinaesthetic characteristics of the rest of the bus's acoustic environment.

When individuals privilege musical sounds using a PLD, they work within a system of spatial order that might not be as prevalent if they were to take out their headphones and open their ears to the different layers of sound in acoustic space. In this regard, headphones seem to eradicate the non-linear, gyroscopic, and kinaesthetic characteristics of the acoustic space experience. Ironically, the *sonic* listening device ends up mimicking visually-dominant interpretations of space, if used in a particular way; PLDs can make sound more directional,

less contingent, and, in some ways, more continuous. Indeed, attempts to achieve acoustic order and exclusion seem to be more reflective of the linear and perspectival properties of visual space than of more open acoustic space conceptualizations. Such attempts may be influenced by what McLuhan and Carpenter (1960: 65) claim is a satisfaction that comes from the visible, because “it’s oriented in a way that we understand.” My participants have been disciplined, in different ways, to “trust the eye, not the ear” (ibid.), or perhaps to trust the ear only when it matches what the eye sees, thereby reproducing the characteristics of linearity and continuity commonly associated with visuality. Eddie told me, “I listen to what I look at – and everything else, those things don’t penetrate my senses.” When he tried to open up his senses, he became frustrated with his inability to discern and organize his acoustic experience. Tom’s solution to a similar problem was to let his music “homogenize” the soundscape by filtering out unwanted sounds and creating a continuous listening process; in other words, he introduced organizing principles of visual space into an acoustic experience.

If sound is being organized by principles of vision in the context of PLD use, it may be that sound is also being separated from acoustic space when it is privately contained in an individual’s ears. This does not mean that acoustic space is necessarily a weak set of properties. My research shows the importance and usefulness of thinking about our world with the multi-sensory, kinaesthetic approach that acoustic space ontologies provide. My conclusions create further opportunities to think critically about an under-researched but emerging topic of sound, music, and spatiality.

“Next Track”: Singing New Songs of Sound, Music, and Spatiality

I guess I *do* associate with [the iPod Generation] because I participate in it... We definitely are surrounded by it and we’re a part of it, but I don’t think we know the significance of it yet, on future generations. (Tom)

...not everything has to be criticized in terms of the directions we're heading in... I think it's more important that we make people aware of what's happening with MP3 players so that they make more informed decisions about how they use them, or whether or not they'll use them in the future. (Logan)

Central to my research is the recognition that the PLD phenomenon on public transit is immensely complex as an empirical topic; when it is discussed in the theoretical context of acoustic spatiality, this complexity only heightens. I have tried to both capture and pull apart the entangled components of PLD use, soundscape, and acoustic space in the context of public transit. In-depth interviews with 11 participants allowed me to understand different experiences with and without PLDs on the bus, but they also revealed conflicted and partial interpretations of why and how people use PLDs, as well as their socio-spatial implications. I have pointed out instances in which my participants' responses contradicted not only *other* interviewees' statements, but also *their own* reflections. Some contradictions were clarified in the interviews, while others remain unresolved. This demonstrates the complexity of the diverse experiences discussed throughout this study and shows that the topic is neither static nor completely understandable. In this sense, my research reflects some of the acoustic space properties I have outlined: open, dynamic, and multi-layered.

Tom's statement quoted in this section's epigraph opines that our understanding of the effects of PLDs on current and future generations remains incomplete. The PLD phenomenon is still relatively recent, and although I have begun to explore some of its socio-spatial implications, we should embrace the opportunity to further unravel the topic as the phenomenon continues to develop, and to make room for unexpected turns in direction. Logan echoed my own sentiments when he remarked on the importance of self-reflexivity when occupying PLD-integrated spaces like the bus. Logan and each of the other participants shared insights, experiences, and opinions that were vital to the research project, and I am pleased that we each left the interviews with opportunities for further reflection. My aim for

what my participants took from the interviews was not to leave with a concrete answer regarding the effect of PLDs on the bus environment, but rather to get them to think critically about their own relationship with PLDs, and to become aware of diverse interpretive possibilities that this phenomenon affords.

New questions and directions for future research therefore emerge out of my exploration of the research questions outlined at the beginning of the thesis. I have investigated some of the ways that people use and interpret PLDs on public transit, but more empirical studies would be useful to add different nuances to a body of literature on PLDs. Since beginning the study in 2007, PLD use has gone from being practiced largely by teenagers and young adults to a multi-generational phenomenon in myriad spaces. Further investigation into how and why different populations use PLDs in spaces beyond public transit, as well as the resulting social and spatial effects, is necessary to have a better understanding of the PLD phenomenon. PLDs, like many modern communication technologies, are rapidly changing; we now find devices that combine media players, Internet, and cellular phones in one pocket-sized package. Future research would be beneficial to account for these developments, and to track how changing mobile devices transform different spaces in new ways.

Susan Smith (2000: 615) encourages geographers to “imagine a world where the eye is less central.” She does not mean that visual properties of space should be ignored; rather, that we should embrace multi-sensory interpretations of our environments. My thesis is guided by Smith’s recommendation, and I have explored the possibilities of acoustic worlds using a combination of empirical findings and theoretical discussions. As my participants have shown through their narratives of PLD use, sound shapes our environments. Sound serves as an epistemological tool to think about and explore the spaces we occupy, and is a crucial part of the struggle to define and inhabit these spaces. Music, as a special example of

sound, has complex affective powers that have the capacity to reconstitute and respatialize environments in diverse ways, as I have demonstrated in the context of public transit. It is important to design future research projects that accommodate the notion that sound and music are central to our everyday experiences, and as such, they shape our understandings of spatiality.

Although it is a concept that needs further development and questioning, acoustic space allows us to embrace sound in our understanding of spatiality. My research draws from and elaborates on existing theories of acoustic space, and I encourage geographers to use this thesis as a launching point for future exploration of sound, music and spatiality. In doing so, we can uncover new ways of thinking about our world. We may have reached the end of the “playlist” for this thesis, but there will constantly be opportunities to hit the “shuffle” button on these complex topics.

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Appendix 1

Interview Guide for Users of Personal Listening Devices

Personal Listening Device (PLD) and Music Preferences

1. Describe your personal listening device. Which features does it have, and which do you frequently use?
 - settings
 - playlists
 - volume options
 - headphones (size, type, noise-cancelling, visually unobtrusive, etc.), and reasons for these choices
2. Under what circumstances did you acquire the PLD?
 - If you chose it yourself, why did you choose this one over other models?
 - How long have you been using PLDs? How long have you used this particular model?
 - Were you in the habit of using PLDs before you began to take public transit?
 - Have you always used a PLD on public transit? If not, when did this change and why?
3. How do you see yourself in relation to what is often referred to as the “iPod generation”?
 - Do you think you’re part of it?
 - What does it mean to you?
4. How do you identify with music?
 - Are you someone that actively listens to it or do you prefer it as background (or not at all)?
 - Would you consider yourself a “music lover”? Please explain.
 - What kind of role does music play in your life?
 - How important is it for you to seek new music?
 - Do you prefer instead to stick with particular groups or genres that you have identified with for quite some time?
5. How do you use your personal listening device?
 - File types (full albums vs. single files)?
 - Do you listen for the music, or other acoustic experiences (eg. Podcasts, books on tape, etc.)?
6. Do you use your personal listening device differently on public transit than you would in other everyday places? If so, how does this activity differ on transit? Does this change along different transit routes?
7. Why do you use a PLD?
 - interest in music
 - alter experience
 - escape
 - comfort
 - individualism
 - privacy
 - personal space
 - isolation
 - social interaction
 - status
 - familiarity/security

-control

(If participant mentions 'control'): Why do you wish to gain control? What is this in response to? (i.e., what kinds of constraints do you see yourself under in your everyday life that cause you to desire more control?)

8. What are your sources of music?

-downloads

-album transfers

-iPod swaps

-other (specify)

9. What do you listen to on the device?

-e.g. artists, genres, instrumental or lyrical, nothing at all (may just use headphones as accessories, or for barriers to social interaction)

-Why do you listen to these choices over other types of music/sound files?

10. How do you choose what you listen to on your PLD?

-To what degree is the listening experience planned out ahead of time?

-In general, do you follow a consistent pattern of listening (e.g. same music each day, same order, etc.)

-What kinds of factors on the commute affect what you listen to?

11. When you use your PLD, how much attention do you pay to the sound?

-If the musical/sonic content is important to you, can you please break this down further to explain which elements you pay attention to? (e.g. lyrics, rhythms, timbres, etc.)

12. Do you use your PLD in non-acoustic ways?

-pictures/videos

-*headphones in, but no music on*

13. To what degree are you concerned with or aware of possible health effects related to headphone use?

-Does this affect how you listen to your PLD?

14. Does identity play a factor in your listening options?

-In what ways, if at all, do you think your music selections or listening practices shape your identity?

-Do you think that your appearance and behaviour in public reflect your musical taste (or vice versa)?

-What sort of statement do you think you make when using your PLD? Are you trying to make a statement?

-Which parts of the listening experience do you think contribute to a particular identity? (Music, volume, particular types of equipment such as headphones, etc.)

-Are you concerned with how you represent yourself to other commuters? If so, explain.

Public Transit

15. Which bus routes do you frequently take?

-How often do you take each route?

16. Why do you use the bus?

17. Where are you going when you use it?

18. What times of the day do you generally use public transit?

19. Describe any previous experience using public transit before attending Brock University.

-Where? (Which city/town? If in St. Catharines, which routes?)

-How often?

- How did this past experience affect your decision to take transit, or how does it affect the way you feel about using it now?
- 20. Describe a typical transit journey.
 - Sensory observations: sight/sound/smell/touch/taste (if applicable)
 - What do you pay more attention to? What do you tend to ignore?
 - Do you prefer certain seating arrangements over others? What kind of control do you feel you might have over this? How might the position of other riders affect your preferences?
- 21. What kinds of emotions do you experience as a result of these observations?
 - Which features do you view positively, and which do you view negatively?
- 22. How do you feel about using public transit?
 - How is this affected by your sense of control over your use of it? (for example, if using this mode of transportation is your only viable choice, does this affect your attitude toward your experience?)
 - Did the freedom to use a PLD on public transit affect your decision to use this mode of transportation?
- 23. If applicable, how do you use your PLD to alter/influence this experience? What are the most important things for you to change? Why?
- 24. What is the time frame of your journey?
 - Include time spent on transit, but also the time spent getting to transit stops, and getting from the vehicle to the final destination
 - How do you feel about the length of your commute? (e.g. too long, manageable, enjoyable)
- 25. How do you use your time on your commute?
 - Is it a welcome part of your day?
 - If not, what kinds of factors make it an undesirable part of your day?
 - How do your feelings about using the bus affect the ways that you occupy your time during a commute?
- 26. How familiar would you say you are with the areas of St. Catharines that you pass through on public transit?
 - Does this level of familiarity affect your experience of the environment outside of the vehicle?

Soundscape

- 27. Are you familiar with the term “soundscape”? If so, what does this term mean to you?
- 28. What kinds of sounds do you associate with St. Catharines?
- 29. What kinds of sounds do you associate with urban environments?
- 30. What kinds of sounds do you associate with a collective group of Brock students?
- 31. Do you think about soundscape when you take public transit?
- 32. What kinds of sounds do you typically hear on a transit ride?
 - What kinds of feelings do you attach to this soundscape?
 - What kinds of sounds do you wish to drown out or get rid of?
- 33. What degree of control do you feel you have over soundscape?
 - Is this even important to you?
- 34. How important is it for you to personalize your soundscape?

PLDs on Public Transit

35. How does the transit ride affect what you listen to on your device?
 - Do you create playlists for your commute?
 - You mentioned earlier that you generally listen to [list the kinds of music]. How does this compare more specifically to what you listen to on transit? Does it change, or is it a more narrow selection of a larger set of music, or does it randomly play from your entire music collection?
36. How does the music you choose influence your experience of the commute?
 - Inside the bus?
 - How does the music you listen to affect the landscape beyond the bus?
 - In your mind, is the music separate from what you see outside, or is it somehow blended?
 - If applicable, do you feel that the music is part of the background or the foreground?
 - Does the music in any way make you feel closer to certain aspects of the environments you are in during your commute? If so, please explain. To what degree does this affect your listening practices?
 - Does the music make you feel more distant or separated from some parts of the transit experience in other ways? If so, please explain. To what degree does this affect your listening practices?
37. Where is your attention focused when using your PLD?
 - Inside/outside vehicle?
 - Is your attention focused on visual or acoustic elements of certain environments, or perhaps a mixture of both?
38. How does your experience of the environment both in and outside of the vehicle affect your experience of the *music*?
 - Do you attach different meanings to music as you travel through different environments?
 - Do the changing environments enhance certain aspects of the music? Do they mask some aspects of the music?
 - In what way do the environments, and your interpretation of them, affect your listening choices? --Do you change music "on the fly" as you pass through certain environments?
 - Does your experience of the transit environment (both inside and outside) affect the emotions/moods you attach to your music? For example, is there a certain type of music or artist that you generally attach positive feelings to, but find unpleasant on transit because of some aspect of your commute?
39. In what ways does your PLD, or the music that you listen to on your PLD, affect your perception of time on transit?
 - Does time pass with more ease?
 - Does time seem drawn out? Is this a positive or negative thing (i.e., do you enjoy your commute and therefore welcome the fact that time seems extended, or do you prefer your commute to feel reduced?)
 - Does the music change how you measure time? (For example, is your commute measured by minutes, or by the number of songs you hear, or by certain rhythmic patterns in the music?)
 - Does the music you listen to change your perception of the vehicle's speed?
40. In what ways does the use of a PLD alter or reshape the space of the vehicle, and your understanding of your connection to certain spaces/environments/people?
 - Does sound make you feel that the vehicle is larger or expanded in certain ways?

- Does it make you feel that you have more space around you?
- Does it allow you to feel attached to certain elements of the environment beyond the vehicle that you might not have felt connected to before?
- 41. How aware of your surroundings are you when using a PLD? What are you paying attention to?
- 42. How might your experience be different without the use of a PLD?
- 43. Why do you think other people use PLDs?
- 44. How do you interpret the visual signs of headphones?
- 45. How does having a PLD affect your seating preferences? For example, do you prefer to sit near a window while music is on? Are you less likely to be concerned with your seating arrangement if you have personal music?
- 46. Would you still listen to music if the vehicles were equipped with radios or music players that continually produced sound?
- Why or why not?

Social Interaction/Behaviour

- 47. Describe your interaction with other riders.
 - How do you feel about this level of social interaction?
 - How might the use of a PLD affect this?
- 48. Do you interact with most riders in a fairly consistent manner?
 - If not, why and how does your interaction change?
- 49. What kinds of behaviours do you associate with other riders (specifically, Brock students who may comprise most of the ridership on certain routes)?
- 50. How solitary is your commute?
 - Do you typically ride the bus by yourself, or with acquaintances?
 - If you happen to meet acquaintances on the bus, how does this affect your listening practices?
- 51. Do you think that riding public transit allows you to form social relationships with other riders?
 - If so, please elaborate using personal experience if possible, or speculation.
 - Do you think that unspoken bonds exist between some or all commuters?
- 52. Explain the similarities and differences between your behaviour on public transit and that of riders that do not use listening devices.
- 53. Do you think that you have similar intentions regarding social interaction?
 - If so, how do you achieve a similar goal with a listening device? How do non-users achieve this goal?
 - If not, what do you think about this difference?
- 54. Describe the role of other riders in your listening process.
 - Do you share your music with them?
 - Are they "actors" in your soundtrack to your life?
- 55. Do you think that PLDs create social relationships or facilitate interaction on public transit?
 - If so, explain how this is done.
 - How does this compare to other types of interaction on transit?
- 56. How do you feel when you can hear sound from another rider's headphones while on your journey?
 - How do you react/respond to this?
- 57. What are your opinions/values surrounding personal space?
 - What do you mean by personal space? (e.g., visual, physical, acoustic, etc.)

-Do you think that headphones and PLDs change the way you think about personal space? For example, do you think it is possible to acquire or protect personal space by acoustic means, even if it may not be protected visually or physically?

58. What are your expectations for sociability or communication on public transit?

-Is there a "proper" or "normal" way to communicate?

-How is this maintained? (Do people "follow the rules"?)

-As a public space, are there certain rules or etiquettes that you follow?

59. What are your thoughts on the idea of headphone/PLD etiquette?

-Does it exist? If so, what are its characteristics?

-Should it be practiced?

-Do you follow it and/or expect it from others?

Summary

60. Are there any questions you would like me to ask again?

61. Is there anything you wish to add? (e.g., a point that you want to make that wasn't directly addressed by the questions)

62. Do you have any questions for me before we conclude the interview?

Appendix 2

Interview Questions for *Non-Users* of Personal Listening Devices

Personal Listening Device (PLD) and Music Preferences

1. Describe your personal listening device. Which features does it have, and which do you frequently use?
 - settings
 - playlists
 - volume options
 - headphones (size, type, noise-cancelling, visually unobtrusive, etc.), and reasons for these choices
2. Under what circumstances did you acquire the PLD?
 - If you chose it yourself, why did you choose this one over other models?
 - How long have you been using PLDs? How long have you used this particular model?
 - Were you using PLDs before you began to take public transit?
 - Did you ever use a PLD on public transit in the past? If so, what prompted you to stop?
3. How do you see yourself in relation to what is often referred to as the “iPod generation”?
 - Do you think you’re part of it?
 - What does it mean to you?
4. How do you identify with music?
 - Are you someone that actively listens to it or do you prefer it as background (or not at all)?
 - Would you consider yourself a “music lover”? Please explain.
 - What kind of role does music play in your life?
 - If the role is small or nonexistent, what are your reasons for this?
 - How important is it for you to seek new music?
 - Do you prefer instead to stick with particular groups or genres that you have identified with for quite some time?
5. *(Questions 5-13 will be asked if participant uses a PLD in locations other than the bus)*
 How do you use your personal listening device?
 - File types (full albums vs. single files)?
 - Do you listen for the music, or other acoustic experiences (eg. Podcasts, books on tape, etc.)?
6. Why do you use a PLD?
 - interest in music
 - alter experience
 - escape
 - comfort
 - individualism
 - privacy
 - personal space
 - isolation
 - social interaction
 - status
 - familiarity/security

- control
(If participant mentions 'control'): Why do you wish to gain control? What is this in response to (i.e., what kinds of constraints do you see yourself under in your everyday life that cause you to desire more control?)
- 7. What are your sources of music?
 - downloads
 - album transfers
 - iPod swaps
 - other (specify)
- 8. What do you listen to on the device?
 - e.g. artists, genres, instrumental or lyrical, nothing at all (may just use headphones as accessories, or for barriers to social interaction)
 - Why do you listen to these choices over other types of music/sound files?
- 9. How do you choose what you listen to on your PLD?
 - To what degree is the listening experience planned out ahead of time?
 - In general, do you follow a consistent pattern of listening (e.g. same music each day, same order, etc.)
 - What kinds of factors on the commute affect what you listen to?
- 10. When you use your PLD, how much attention do you pay to the sound?
 - If the musical/sonic content is important to you, can you please break this down further to explain which elements you pay attention to? (e.g. lyrics, rhythms, timbres, etc.)
- 11. Do you use your PLD in non-acoustic ways?
 - pictures/videos
 - headphones in, but no music on
- 12. To what degree are you concerned with or aware of possible health effects related to headphone use?
 - Does this affect how you listen to your PLD (if applicable)?
 - Is this part of your rationale for not using a PLD on public transit?
- 13. Does identity play a factor in your listening options?
 - In what ways, if at all, do you think your music selections or listening practices shape your identity?
 - Do you think that your appearance and behaviour in public reflect your musical taste (or vice versa)?
 - Are you concerned with how you represent yourself to other commuters? If so, explain.

Public Transit

- 14. Which bus routes do you use?
 - How often do you take each route?
- 15. Why do you use the bus?
- 16. Where are you going when you use public transit?
- 17. What times of the day do you generally use public transit?
- 18. Describe any previous experience using public transit before attending Brock University.
 - Where? (Which city/town? If in St. Catharines, which routes?)
 - How often?
 - How did this past experience affect your decision to take transit, or how does it affect the way you feel about using it now?
- 19. What kinds of factors influenced your decision to use public transit on a frequent basis?

20. Describe a typical transit journey.
 - Sensory observations about vehicle, characteristics of places along the route, fellow riders
 - What do you pay more attention to? What do you tend to ignore?
 - Do you prefer certain seating arrangements over others? What kind of control do you feel you might have over this? How might the position of other riders affect your preferences?
21. What kinds of emotions do you experience as a result of these observations?
 - Which features do you view positively, and which do you view negatively?
22. How do you feel about using public transit?
 - How is this affected by your sense of control over your use of it? (for example, if using this mode of transportation is your only viable choice, does this affect your attitude toward your experience?)
23. What is the time frame of your journey?
 - Include time spent on transit, but also the time spent getting to transit stops, and getting from the vehicle to the final destination
 - How do you feel about the length of your commute? (e.g. too long, manageable, enjoyable)
24. How do you use your time on your commute?
 - Is it a welcome part of your day?
 - Are you apprehensive about this experience?
 - How do your feelings about using the bus affect the ways that you occupy your time during a commute?
25. How familiar would you say you are with the areas of St. Catharines that you pass through on public transit?
 - Does this level of familiarity affect your experience of the environment outside of the vehicle?

Soundscape

26. Are you familiar with the term “soundscape”? If so, what does this term mean to you?
27. What kinds of sounds do you associate with St. Catharines?
28. What kinds of sounds do you associate with urban environments?
29. What kinds of sounds do you associate with a collective group of Brock students?
30. Do you think about soundscape when you take public transit?
31. What kinds of sounds do you typically hear on a transit ride?
 - What feelings do you attach to this soundscape?
 - What kinds of sounds would you prefer to get rid of or drown out, given the option?
32. What degree of control do you feel you have over soundscape?
 - Is this even important to you?
33. How important is it for you to personalize your soundscape?

Personal Listening Devices on Public Transit

34. What were/are your reasons behind your choice to take transit without a personal listening device?
35. How do you feel about the increasing use of PLDs on public transit?
 - How does this affect your own experience?
36. How do you interpret the visual signs of headphones?
37. Why do you think other people use PLDs?
38. Do you listen to music in other places? Under what circumstances?

-If you listen to music in places other than transit, do you use a PLD as the source of music?

39. Under what circumstances, if at all, could you see yourself becoming an iPod user on transit?

Social Interaction/Behaviour

40. Describe your interaction with other riders.

41. Do you interact with most riders in a fairly consistent manner?

-If not, why and how does your interaction change?

42. What kinds of behaviours do you associate with other riders (specifically, Brock students who may comprise most of the ridership on certain routes)?

43. How solitary is your commute?

-Do you typically ride the bus by yourself, or with acquaintances?

-If you happen to meet acquaintances on the bus, how does this affect your listening practices?

44. Do you think that riding public transit allows you to form social relationships with other riders?

-If so, please elaborate using personal experience if possible, or speculation.

-Do you think that unspoken bonds exist between some or all commuters?

45. Explain the similarities and differences between your behaviour on public transit and that of riders that use listening devices.

46. Do you think that you have similar intentions regarding social interaction?

-If so, how do you achieve a similar goal without a listening device? How do PLD users achieve this goal?

-If not, what do you think about this difference?

47. How do you feel when you can hear sound from another rider's headphones while on your journey?

-Is this welcomed?

-Is it considered invasive?

-How do you react/respond to this?

48. What are your opinions/values surrounding personal space?

-Both on the bus, and in your everyday life?

-What exactly do you mean by personal space? (e.g., visual, physical, acoustic, etc.)

-Do you think that headphones and PLDs change the way you/we/others may think about personal space? For example, do you think that it is possible to acquire or protect personal space by acoustic means, even if it may not be protected visually or physically?

49. What are your expectations for sociability or communication on public transit?

-Is there a "proper" or "normal" way to communicate?

-How is this maintained? (Do people "follow the rules"?)

-As a public space, are there certain rules or etiquettes that you follow?

50. What are your thoughts on the idea of headphone/PLD etiquette?

-Does it exist? If so, what are the characteristics?

-Should it be practiced?

-Do you follow it and/or expect it from others?

51. How would you respond if transit vehicles were equipped with radios that played music over a speaker for everyone to hear?

Summary

- 52. Are there any questions you would like me to ask again?
- 53. Is there anything you wish to add (e.g., a point that you want to make that wasn't directly addressed by the questions)?
- 54. Do you have any questions for me before we conclude the interview?